PEOPLE - PLANET - PROSPERITY

REIMAGINING A NEW FUTURE

INTEGRATED ANNUAL REPORT

2020-21

HINDALCO INDUSTRIES LIMITED

BIG IN YOUR LIFE

Mr. Aditya Vikram Birla

We live by his values

Integrity, Commitment, Passion, Seamlessness and Speed

CHAIRMAN'S MESSAGE

Towards a More Socially Secure and Resilient Future

The Global Economy

The world has been fighting the COVID-19 pandemic for more than a year now, and the struggle has had deleterious economic effects. In 2020, the global economy contracted by 3.3%, the largest contraction on record, at least since World War II. Much of it was concentrated in the first half of our fiscal year FY21, as several countries enforced strict lockdowns. Economies bounced back – albeit at differentiated speeds – in subsequent quarters, on the back of large fiscal stimulus packages, especially in the developed countries, restocking demand after dilution of lockdowns, and improved confidence levels following the start of vaccination programmes. As per the recent forecasts from International Monetary Fund (IMF), the US and China are expected to record a strong recovery in 2021, resulting in a net positive expansion of their economies over the 2019 levels. These two engines of growth are expected to boost demand for exports from other countries. Even the other two large economies, the EU and Japan, are expected to expand.

In response to the pandemic, central banks resorted to strongly supportive monetary policies in most developed economies, causing interest rates to go down to record lows. At the same time, another consequence of this policy has been a surfeit of liquidity. That has led to a strong rally in prices of many industrial commodities, which has also been supported by the evolving economic recovery, stimulus-related demand expectations and certain supply-side disruptions. This has caused inflationary pressures on the cost dynamic of several manufacturing industries.

The latest IMF forecast suggests a strong 6% growth in global GDP in 2021. But the occurrence of second and third waves of COVID in different parts of the world and reports of virus mutations have created downside risks to the outlook of a strong growth rebound. Recovery remains uneven and uncertain, with the extent of fiscal support and level of vaccination being key differentiators of the short-term economic outlook across countries.

Indian Economy

Indian economy, which was firmly on the path of recovery in the second half of FY21, was hit by a rather unexpectedly virulent second wave of COVID-19. That caused a severe strain on healthcare facilities in many parts of the country, leading to localised lockdowns and a fall in mobility to levels seen a year ago. This may lead to some reassessment of growth estimates for FY22.

As a silver lining, disruptions to production and supply chains have been far less severe during the second wave than during the first wave.

Vaccinations are picking up pace, which would support faster normalisation of mobility levels and of related economic activities. Continued accommodative monetary policy of the RBI and the expected increase in capex from the Government are factors that will support growth recovery. In addition, global growth prospects provide us with exports as an additional strong driver of growth.

The longer-term prospects for the Indian economy continue to be robust. Various initiatives, including privatisation of public sector enterprises, monetisation of assets, implementation of National Infrastructure Pipeline, targeted investment incentives through the Production-Linked Incentives Scheme and the new Labour Code, are likely to spur a virtuous cycle of investments and growth in the medium-term.

ABG In Perspective

Like for many other organisations, the COVID crisis brought out challenges of many forms. Economic impact and business disruptions apart, many members of our extended family – our employees and their near ones, our value chain partners, our neighbourhoods – faced health emergencies. The pandemic also caused deep psychological scars as people had to adjust to new ways of living and working. Notwithstanding these challenges, our employees have displayed the highest possible resilience in coping with personal concerns and yet staying focused on the customers and the business. Our business results convey only a small part of the story of our employee courage, compassion, community spirit and cultural strength.

As the lockdowns took a firm grip on people's lives and constraints mounted in the early part of the financial year, our leadership teams rose to the occasion with robust planning and continuous communication with people at all levels through the organisation. Personally, it was energising for me to engage at scale with employees globally through a series of digital townhalls that instilled confidence in employees and reinforced the power of 'One ABG'. The 'Respond, Recover and Re-imagine' framework underpinned several new initiatives. These included close coordination among HR teams across the Group units to respond to local-level challenges by leveraging the organisational resources and a thrust on disseminating relevant information through all digital channels about the resources lined up to help the extended ABG family deal with the emergencies.

COVID warriors were trained, and voluntary networks were formed to assist our employees and their families in need. Preferential tie-ups with local hospitals and a central coordination centre with an external party were set up to provide special assistance to our employees through Doctors' network, telemedicine and other COVID related Health assistance. Workplace health, hygiene and COVID-appropriate behaviour remained the focus of our managers at all levels helping the organisation to stay ever vigilant. 'Test, Treat and Trace' was the mantra of protection and well-being followed scrupulously.

Apart from focusing on health emergencies, initiatives for mental agility and continuous learning were taken to maintain organisational morale. A learning programme christened as 'Chairman's Invitation Series' was curated to bring the best insights on a changing world from the world's leading thought leaders. There was an increased thrust on online education, recognition, and knowledge sharing sessions. These well-rounded initiatives on the people front also helped our Business performance to bounce back strongly. The focus on customers and costs remained undiminished through the year. Critical business processes such as new line commissioning, new product launches, new system and technology implementation-all happened seamlessly and presented a unique human story of innovation and fortitude bringing alive the values of commitment and passion. People learnt new skills and new behaviour at work while not being at office or at the workplace as one knows. People engagement, team trust and Group values proved to be the energy and the glue for our performance.

In the spirit of not letting a crisis go to waste, our HR Teams globally collaborated to create a long-term HR Strategy for the Group and individual businesses. This was achieved even while working remotely; 150 of the HR leaders came together digitally over a four-month period to craft a coherent HR strategy to reflect both Group aspirations and the business needs. Premised on creating an Avant Garde HR strategy, the work focused on employee experience and business productivity in a balanced mix with growth, technology, and talent as other critical pillars. This HR strategy is under dissemination to various stakeholders and an annual action agenda is being rolled out at all levels. This has been a signature example of collaboration, thought leadership and determined action – ingredients that usually make up most successful organisations.

Sustainable Focus

The experience of the past year reinforces the criticality and importance of sustainable businesses. At Aditya Birla Group, sustainable business model needs to have three pillars – responsible stewardship, stakeholder engagement and future proofing. We use four dimensions of Business sector, Geography of operation, Value chain and Time horizons to identify issues that are material for the sustainability of our businesses; and then create approaches to balance risks and opportunities for all those material issues. For example, on environment, energy conservation initiatives help us to mitigate risks, while solar energy and climate-resilient products help us to pursue opportunities. Since transparency is fundamental to our approach

> "COVID warriors were trained, and voluntary networks were formed to assist our employees and their families in need. Preferential tie-ups with local hospitals and a central coordination centre with an external party were set up to provide special assistance to our employees through Doctors' network, telemedicine and other COVID related health assistance.

on Sustainability, most of the ABG companies have consciously begun their journey to 'mainstream' ESG reporting. This integrated report is a telling example.

Company's Performance

Your Company delivered yet another strong consolidated performance in FY 2020-21, reflecting its resilience to withstand external shocks and commodity market cycles. This resilient and spirited show was driven by a continued record performance from Novelis and a stable performance by the Indian Aluminium business supported by strong market revival and lower input costs. Your Company registered a consolidated business EBITDA of ₹ 18,896 Crore on a turnover of ₹ 1,31,985 Crore in FY2021-21. Your Company's Aluminium business in India and Novelis continued to deliver steady operational performance, despite tough market conditions due to COVID in the earlier part of the year. The major enablers were stable operations, lower input prices, better cost efficiencies and a strong revival of demand. All the plants operated at their designed capacities during the year, except for some impact in Q1 due to the COVID-induced lockdowns in India. In FY2020-21, more than 80% of Hindalco's consolidated EBITDA was delinked from the volatility of the global Aluminium prices taking together the EBITDA of Novelis, Copper and India Aluminium downstream VAP.

As a step towards the downstream expansion plans in India, your Company announced its plans to set up a 34,000-tonne extrusion plant at Silvassa. This new plant will service the fast-growing market for extruded Aluminium products in India's western and southern regions. Your Company intends to build a larger value-added product portfolio over the next few years. This investment indicates confidence in the economic revival, which will grow the demand for downstream value-added products. In the Copper business, cathode production was 262 Kt, lower than the year-earlier due to loss of production on account of plant shutdown in the first quarter of FY2020-21. The Continuous Cast Rod production was at 235 Kt in FY2020-21, a little lower than the previous year.

Novelis, including Aleris, reported yet another remarkable performance this year with a record shipment of 3,613 Kt, adjusted EBITDA of $1.714 Billion. The adjusted EBITDA/tonne of $474 was also the highest ever. Novelis continues to diversify its product mix with the share of beverage can sheet at 60%, Automotive body sheets at 16%, Specialties at 22% and Aero at 2% in FY2020-21. Novelis reported the share of recycled contents at 61% in FY 2020-21, and this has been continuously rising as the World's largest recycler of Aluminium.

On 14th April 2020, your Company completed the acquisition of Aleris at an enterprise value of $2.8 Billion, reinforcing its position as the World's leading Aluminium value-added player. The Aleris deal enables the further diversification of our metals portfolio into other premium market segments, most notably aerospace. Novelis is now poised to serve the growing Asia market more efficiently by integrating complementary assets in the region. This deal also further insulates Hindalco-Novelis from global price volatility.

Your Company continues to focus on strengthening the balance sheet with the consolidated Net Debt-to-EBITDA at 2.59 times at the end of the financial year 2020-21 from the peak of 3.83 times at the end of June 2020 post the closure of the Aleris acquisition.

During the year, Your Company received credit rating upgrades to Novelis and overall Hindalco. Novelis received credit rating upgrades on its unsecured notes by both S&P Global Ratings and Moody's Investor Services in March 2021, while Hindalco's Credit Rating Outlook upgraded from 'Stable' to 'Positive' while reaffirming the rating at 'AA' by CRISIL in April 2021.

During FY2020-21, Your Company was recognised as the World's most Sustainable Aluminium Company by the S&P Dow Jones Sustainability Indices 2020. This sustainability-led approach to business has enabled your company to strengthen its balance sheet and set global benchmarks on sustainable business practices.

Conclusion

The year-long response to the pandemic, across the globe, exhibited all that is noble and uplifting in the human spirit. A spirit that was also in display in your company's actions and performance during the year.

Through this pandemic, your Company's people and systems have been battle tested and even better prepared to face any competitive challenge or serious external disruption. It has strengthened the bonds within, opened better vistas of co-operation and convinced our stakeholders that our people deliver – no matter what! That is our best assurance of sustainability and continued collective prosperity.

Kumar Mangalam Birla
Chairman

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ABOUT THE REPORT

We, at Hindalco, have been communicating with our stakeholders on our financial as well as non-financial performance through Annual Reports and Sustainability Reports over the years. In 2020-21, we are opting for an integrated approach of reporting through our first Annual Integrated Report (the Report).

The Report is based on the Value Reporting Foundation's Integrated Reporting <IR> Framework. The Value Reporting Foundation is a global nonprofit organisation comprising International Integrated Reporting Council (IIRC) and Sustainability Accounting and Standards Board (SASB).

Through this Report we aim to provide an insight into our value creation efforts for our stakeholders through six capitals – Financial, Manufactured, Human, Natural, Intellectual, and Social and Relationship. This Report also helps us transparently communicate with our stakeholders about our ability to deliver value, managing the risks and understanding the opportunities in the changing environment.

To read this report, go to:
http://www.hindalco.com/investor-centre

Reporting Principle

In this Report, our non-financial performance has been reported in accordance with the GRI Standards: Comprehensive option. We have referred to GRI Standards 2018 for GRI 303: Water and Effluents and to GRI 403: Occupational Health and Safety; while the GRI Standards 2020 are referred to for GRI 306: Waste. All other non-financial disclosures have been reported as per the GRI Standards 2016.

The financial and statutory details disclosed in this report are in line with the requirements of the Companies Act, 2013 (including the rules made thereunder); Indian Accounting Standards; the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015; and the Secretarial Standards issued by the Institute of Company Secretaries of India. The Report is also aligned with the Government of India's National Voluntary Guideline for responsible businesses, principles of the United Nations Global Compact (UNGC) as well as the United Nations Sustainability Development Goals. (UN SDGs).

Reporting Period

The information provided in the Report is of the period of 1st April 2020 to 31st March 2021.

Scope and Boundary

The Report covers the financial and non-financial information of Hindalco Industries Limited. This includes our India operations, including Aluminium and Copper businesses along with information of our wholly-owned subsidiary Novelis Inc.

Independent Assurance

The Standalone and Consolidated financial statements contained in the Financial Statement Section are audited by independent auditors Price Waterhouse & Co. Chartered Accountants LLP. The assurance is based on International Standard on Assurance Engagements (ISAE) 3000 and AccountAbility 1000 Assurance Standard (AA1000AS) 2008. The Assurance Statement is part of this Report.

Forward-looking Statements

Certain statements in this Report with respect to our future growth are forward-looking statements. These statements involve several risks and uncertainties as they are dependent upon assumptions, data or methods that may be incorrect or not capable of being realised. The actual results may differ materially compared to those statements. These statements include all statements except historical information including facts, data, business strategy, mitigation plans and objectives. We do not undertake to update any forward-looking statements that may be made from time to time, because of any events henceforth.

PEOPLE - PLANET- PROSPERITY

REIMAGINING A NEW FUTURE

At Hindalco, our pathways to progress and development have always embodied our passion for sustainable growth. We have come to terms with the dynamic nature of changing global environmental issues. In doing so, we acknowledge the relevance of understanding the relationship between people and the environment. This will guide us in building a prosperous future for our industry, and well beyond.

Recent times have been characterised by volatile, uncertain, complex, and ambiguous business aspects; we are putting our efforts to focus on opportunities that help us meet our strategic objectives.

These are aimed at building a stable portfolio through delinking of LME price volatility and development of greener, stronger and smarter products. As a next step in our journey towards a greener, more resilient, and smarter future, we are in pursuit of prosperity through our commitment to reduce our environmental footprint. We are also driven to understand our impact on socio-environmental systems by introspecting and delivering on key strategic objectives to benefit our planet we impact. Being part of a resource intensive industry, we place a significant emphasis on environmental, social and governance aspects of our business.

Our drive to be a responsible company influences our adoption of sustainable practices. The metals we produce, Aluminium and Copper, are planet friendly, future-focused and have the ability to be recycled multiple times. We are confident that our products are playing a major role in lightweighing the planet. While transforming towards a value-added business ecosystem we ensure that our supply chain partners also adopt sustainable business practices.

We understand that there are different facets involved in a process of change. To transition to a better and more sustainable future, we consider the impact of our actions on the communities and the environment that we directly and indirectly interact with. Our journey to change the norm includes running responsible, efficient and safe operations while contributing towards community development through our CSR initiatives.

Our aim of building a sustainable business encompasses efforts towards reducing air and water pollution and responsible waste management. We are committed to achieving no net loss for biodiversity and nurturing the natural ecosystem. We are confidently progressing on our journey towards zero waste to landfill and workplaces that are free from single-use plastics. We also aim to achieve water positivity in our mines and downstream operations.

This integrated report aims to highlight our intention to be on the path to constant and transformational change while considering responsible practices to improve sustainability in our organisation. It explores opportunities and possibilities of integrating our organisation into a world categorised by rapidly changing linkages between our global natural environment, and the human systems that it supports.

PERFORMANCE HIGHLIGHTS

Consistent Success through Sustained Actions

Financial Capital

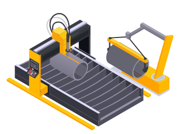
₹131,985 CRORE
Consolidated Revenues with 12% YoY increase.

₹18,896 CRORE
Consolidated EBITDA with 22% YoY increase

₹5,182 CRORE
Consolidated PAT for Continuing Operations with 38% YoY increase

2.59x
Consolidated Net Debt to EBITDA

Manufactured Capital



48
Operational locations and 23 mining locations.

2.5 Mn MT
Recycling capacity of Novelis

IMS
Integrated Management System Certification (ISO 9001, ISO 14001, ISO 45001) at Corporate and all locations

₹168.74 CRORE
Saved in FY 2020-21 through the implementation of 2,658 Opportunities Ideas Concepts (OIC), Kaizens

Human Capital

7%
Women in total workforce

4.9%
Employee Turnover Rate

2.2 MILLION
Consolidated training man hours

85%
VIBES employee survey score (employee engagement index); 96% employees participated

Intellectual Capital

₹790.15 CRORE
Spent on R&D

32
New products launched

331
New patents granted and 259 new patents filed

₹165 CRORE
Business due to launch of new products

Natural Capital

17%
Reduction in Specific Energy Consumption for Aluminium operations (as compared to 2011-12)

48%
Reduction in Specific fresh water withdrawal (as compared to 2010-11)

18%
Reduction in Specific GHG Emissions for Aluminium operations (as compared to 2011-12)

80%
Recycle and reuse of waste generated, 15% higher than baseline year

Social and Relationship Capital

MORE THAN 1.2 MILLION
Lives touched

₹53.99 CRORE
Community Expenditure

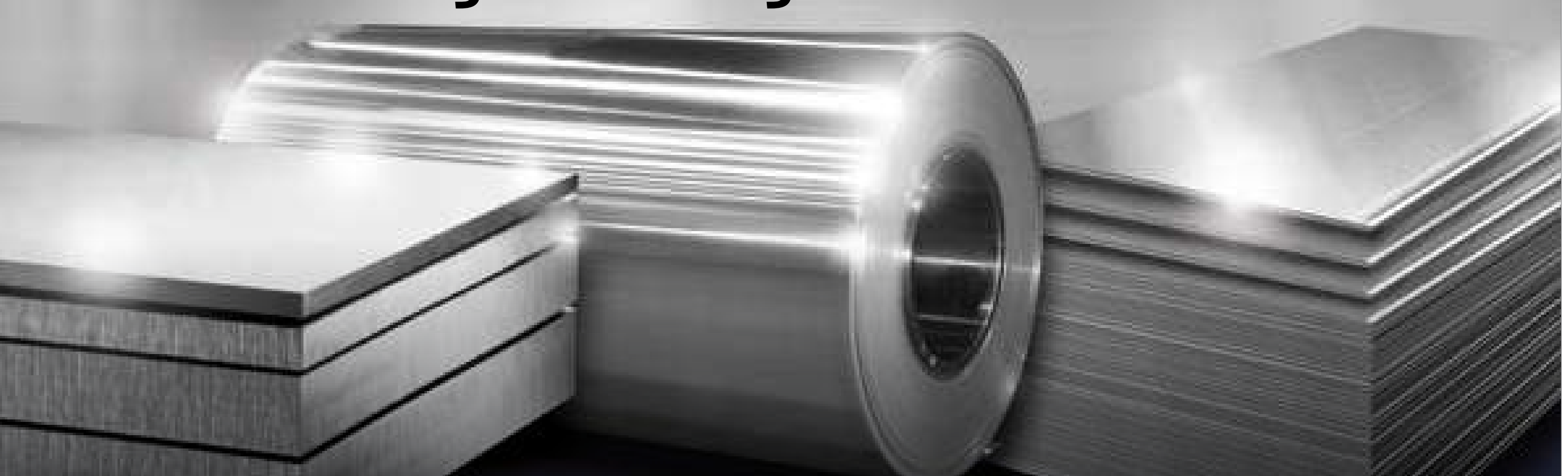
46%
NPS Score (Foil)

58%
NPS Score (Extrusion)

1,128
Number of suppliers assessed

HINDALCO AT A GLANCE

We are an Agent of Progress



Hindalco Industries Limited is a metals flagship company of the Aditya Birla Group. We are the world's largest Aluminium rolling and recycling company and a major Copper player. We are also recognised as one of Asia's largest producers of primary Aluminium. We maintain a presence throughout the manufacturing value chain from bauxite mining, alumina refining, coal mining, aluminium smelting to downstream rolling, extrusions, and foils.

Driven by our purpose of building a Greener, Stronger, Smarter world, we provide innovative solutions for a sustainable and prosperous planet. Our core focus as a company is to provide high-grade, environmentally-friendly products across our business portfolio which is achieved through robust and significantly optimised manufacturing practices and capabilities. We focus on our ability to bring the best possible value to all our people and stakeholders. Continuing with our legacy of serving our customers with high quality and reliable products; we have successfully launched a range of some renowned brands over the years:

Aluminium Extrusions Brands

- Hindalco Extrusions
- Maxloader - Commercial and passenger vehicles
- Eternia - Door and window solutions

Aluminium FRP Brands

- Everlast - Roofing solutions

Copper Product Brands

- Birla Balwan - Phosphatic Fertilisers

Each of our facilities marks a milestone in our growth story aligned to our values of Integrity, Commitment, Passion, Seamlessness and Speed.

Our Values

Integrity

Honesty in every action

Commitment

On the foundation of integrity, doing what it takes to deliver, as promised

Seamlessness

Thinking and working together across functional silos, hierarchy levels, businesses and geographies

Passion

Missionary zeal arising out of an emotional engagement with work

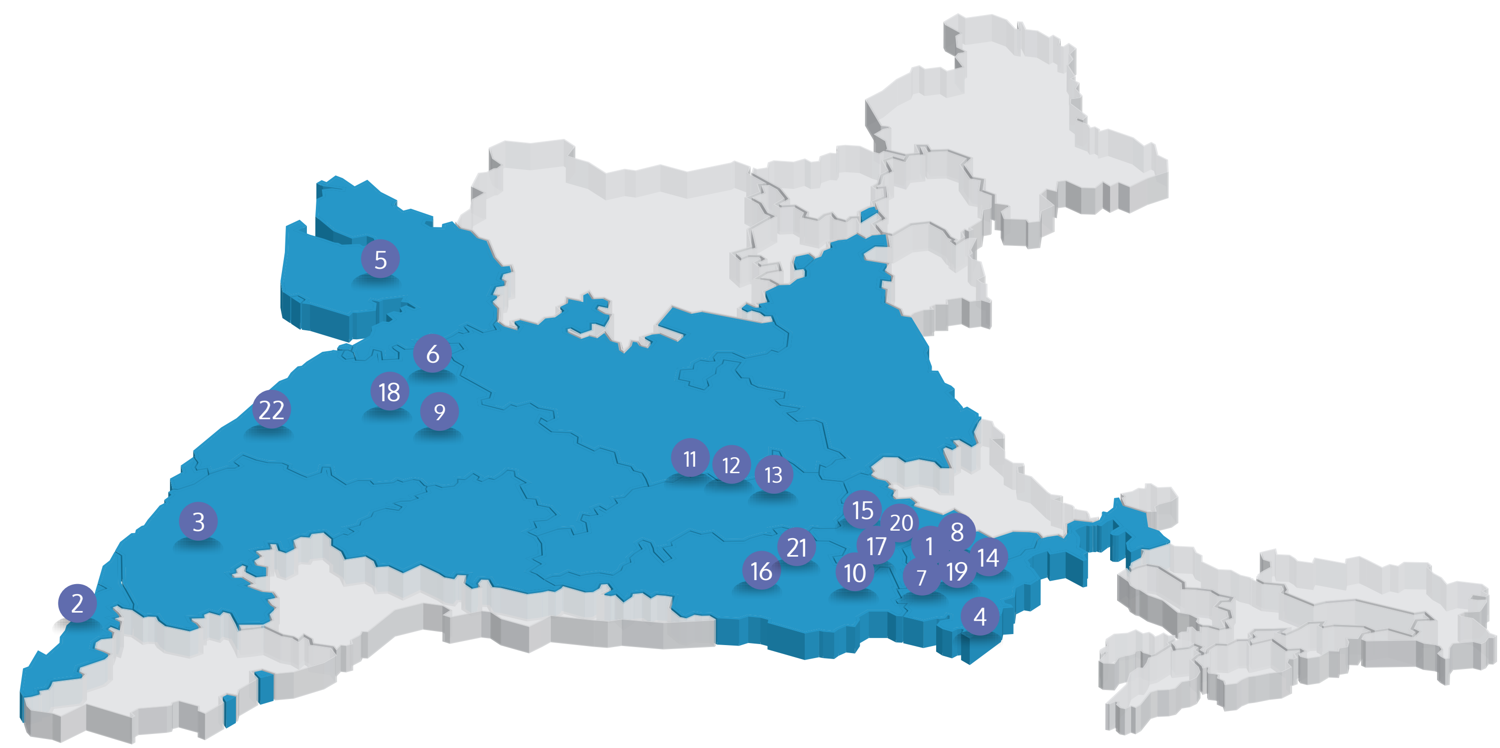
Speed

Responding to stakeholders with a sense of urgency

Our Expansive Footprint Across India

Novelis, our wholly-owned subsidiary, distinguishes itself as the world's largest Aluminium Flat Rolled Products (FRP) producer and recycler. We are constantly expanding our horizons with regard to leading the industries that we are a part of in a holistically sustainable manner. We operate a highly integrated network of technically-advanced rolling and recycling facilities across the Americas, Europe, and Asia. Novelis also manufactures some of the highest-grade Aluminium automotive body sheets and beverage can sheets, which are provided to acclaimed customers such as Coca-Cola, Ford, Jaguar Land Rover and Samsung among several others. In this regard, we value being able to work with some of the leading organisations around the world that make a significant impact on their industries as well.

No.	Location	Facilities
1	Aditya Aluminium	CPP, Smelter
2	Alupuram	Extrusion/FRP/Foil
3	Belagavi	Refinery
4	Belur Works	Extrusion/FRP/Foil
5	Dahej	CPP, Copper
6	HAAL	Extrusion/FRP/Foil
7	Hirakud S&P	CPP, Smelter
8	Hirakud FRP	Extrusion/FRP/Foil
9	Mouda	Extrusion/FRP/Foil
10	Muri	CPP, Refinery
11	Mahan	CPP, Smelter
12	Renukoot	CPP, Refinery, Smelter, Extrusion/FRP/Foil
13	Renusagar	CPP
14	Utkal Alumina	CPP, Refinery
15	Samri	Bauxite
16	Netarhat	Bauxite
17	Lohardaga	Bauxite
18	Durgmandwadi/ Chandgarh	Bauxite
19	Baphlimali	Bauxite
20	Kathautia	Coal
21	Gare Palma	Coal
22	Taloja	Extrusion/FRP/Foil

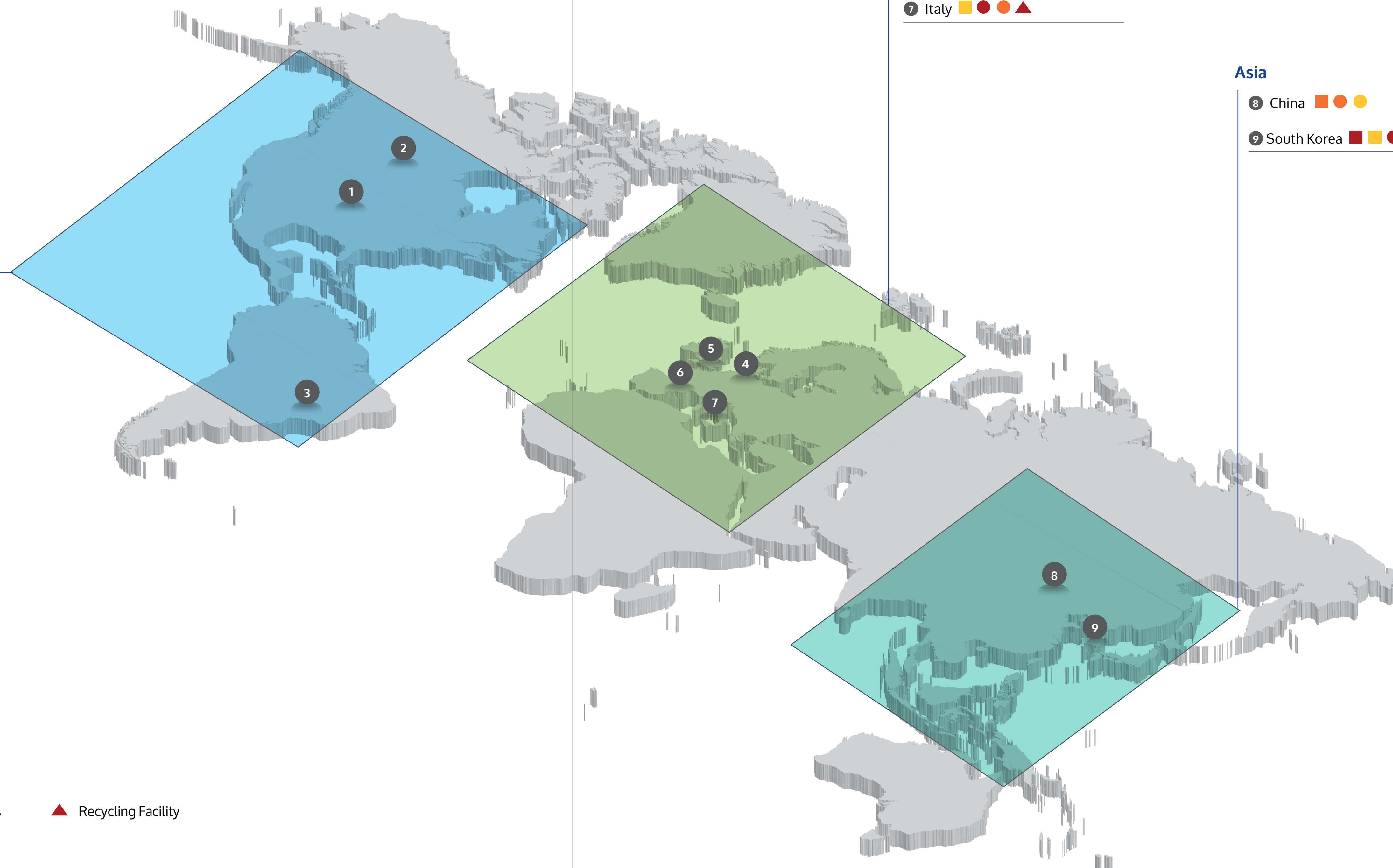


CPP Refinery Smelter Extrusion/FRP/Foil Bauxite Coal Copper

HINDALCO AT A GLANCE (CONTD.)

Novelis' Global Presence

Our achievements and acclaims within our industry, are a testament to the high-grade nature of our products and our organisational excellence. We strive to analyse and evaluate our best possible options while planning our strategic outlook for the future.



North America and South America

Novelis Inc.

1 US ■ ■ ■ ● ● ● ▲

Kentucky, West Virginia, Georgia, New York, Indiana and Ohio

2 Canada ■ ■ ●

Ontario

3 Brazil ■ ● ● ● ▲

Europe and the UK

4 Germany ■ ■ ■ ● ● ● ▲

5 UK ● ▲

6 Switzerland ■ ■ ■ ● ● ●

7 Italy ■ ● ● ▲

Asia

8 China ■ ● ●

9 South Korea ■ ■ ● ● ● ▲

■ R&D/Technology Centre

■ Automotive Finishing

■ Cold Rolling

● Finishing Lines

● Casting

● Hot Rolling

▲ Recycling Facility

BOARD OF DIRECTORS

Mr. Kumar Mangalam Birla

Non-Executive Chairman

NRC

Mrs. Rajashree Birla

Non-Executive Director

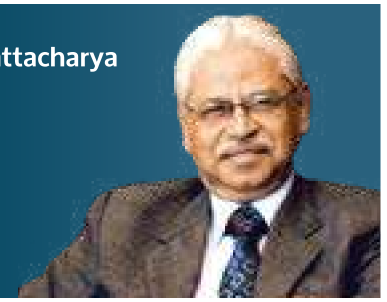
CSRC

Mr. Satish Pai

Managing Director

RMC SRC CSRC PIT FC

Mr. Debnarayan Bhattacharya



Non-Executive
Vice Chairman

CSRC RMC FC

Mr. Praveen Kumar Maheshwari

Whole time Director &
CFO

RMC

Mr. Askaran Agarwala

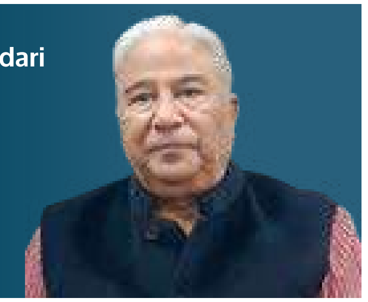
Non-Executive Director

SRC CSRC RMC FC

AC Audit Committee **CSRC** CSR Committee **NRC** Nomination and Remuneration Committee **RMC** Risk Management Committee

Chairman Member

Mr. Kailash Nath Bhandari



Independent Director

AC SRC NRC RMC

Mr. Yazdi Piroj Dandiwala

Independent Director

AC NRC CSRC PIT

Dr. Vikas Balia

Independent Director

AC

Ms. Alka Marezban Bharucha

Independent Director

Mr. Sudhir Mital

Independent Director

Mr. Anant Maheshwari

Independent Director

SRC Stakeholder Relationship Committee **PIT** Prevention of Insider Trading (PIT) Regulations Committee **FC** Finance Committee

LEADERSHIP TEAM

Mr. Praveen Kumar Maheshwari
Whole-time Director, CFO

Mr. Samik Basu
Chief Human Resources Officer

Mr. Nilesh Koul
Head - Marketing, Business Development and Strategic Initiatives - Aluminium Business

Mr. Satish Pai
Managing Director

Mr. Anil Mathew
Head - Policy Advocacy, and Chief Risk Officer

Mr. B. Arunkumar
Head - Downstream Operations

Mr. V.R. Shankar
Head - Legal

Mr. Bibhu Mishra
Head - Manufacturing Centre of Excellence

Mr. Aniruddha Kulkarni
Chief Strategy Officer

Mr. Anil Malik
Company Secretary

Not in the picture

Mr. N. Nagesh
Head - Renukoot Cluster

Mr. Rajesh Kumar Gupta
Head - Mining & Minerals

Mr. Mazharullah Beig
Unit Head - Utkal Alumina International Limited

Mr. A. Krishna Kumar
Head - Chemicals Business

MESSAGE FROM THE MANAGING DIRECTOR

Recognised as a Sustainability Champion

Dear Stakeholders,

The past 18 months have been a defining period in the history of humankind, testing the resilience of people, companies and countries. The pandemic experience has also reaffirmed Hindalco's understanding of business sustainability, where future readiness means a convergence of People, Planet and Prosperity.

For years, we have been working to build a greener tomorrow in line with our commitment to reduce our footprint on the environment. And we continue to consistently create value for the prosperity and wellbeing of all our stakeholders, including our people and communities.

Despite the pandemic-induced volatility in business environment, Hindalco marked some significant milestones. We were recognised as the World's Most Sustainable Alumunium Company by the S&P Dow Jones Sustainability Indices 2020. We completed the acquisition of Aleris – a major milestone on our path to global leadership in the Aluminium sector. The association has already accelerated synergistic benefits through the year and has added to the top line and EBITDA.

₹18,896 CRORE

EBITDA 22% YoY growth

Health and safety being our top priority, we instituted new processes to protect our employees across positions and to support the community.

Hindalco recognises the dedication and hard work of our people that ensured an efficient and consistent functioning of our business operations through the pandemic.

A strong performance

During the year, we delivered a strong financial and operational performance bolstered by operational efficiencies, a robust risk management framework and a sustainable business model. Our consolidated business EBITDA was ₹ 18,896 Crore, up by 22% percent year-on-year and we reported a consolidated PAT on our continuing business of ₹ 5,182 Crore, up by 38% percent on a year-on-year basis. These results were driven by the strong and stable performance of our India operations and a record performance by Novelis.

This was also an outcome of our cost-saving actions, enhanced product mix and lower input costs. We continued to strengthen our balance sheet and brought down the consolidated Net Debt-to-EBITDA to 2.59 times at the end of the financial year from a peak of 3.83 times at the end of June 2020 after closing the acquisition of Aleris.

The Aleris acquisition is a key step towards the diversification of our downstream portfolio into certain premium market segments, particularly aerospace. Post the acquisition, this year proved to be remarkable for Novelis (+Aleris) as it delivered its best performance.

We crossed some significant financial milestones, clocking the highest-ever:

- Shipments of 3,613 Kt
- Adjusted EBITDA of $1,714 million at Novelis
- Adjusted EBITDA/tonne of $474 at Novelis

Our India downstream strategy of reducing our exposure to the global Aluminium price fluctuations and increasing the share of value-added products (VAP) across businesses is playing out well.

During the year, more than 80% of Hindalco's consolidated EBITDA was delinked from the volatility of the global Aluminium prices. Our efforts have led to an increase in the share of VAP to total metals with Aluminium VAP sales going up year after year. Our Silvassa extrusion facility announced this year is another step towards increasing the share of VAP. This plant will service the fast-growing market for extruded Aluminium products in the western and southern regions of India.

Our foray into the new generation of high strength Aluminium, which would not have been possible without the support of our R&D team, has enabled us to extend innovative product offerings in the automobile sector.

In our Copper business, the shift towards value added products continues. We are focusing on expansion in the Copper CCR capacity and venturing into newer products like Copper inner grooved tubes used in AC coils and refrigerators.

MESSAGE FROM THE MANAGING DIRECTOR

Hindalco's ESG commitments include achieving net carbon neutrality by 2050. Net neutrality means for every tonne of carbon dioxide we put into the atmosphere, we take out one tonne from it, thereby achieving a balance.

Future Ready: Capital Allocation Framework

Hindalco introduced its first Capital Allocation Framework indicating how it will distribute its consolidated operating cashflows after meeting maintenance capex and working capital requirements. The framework's objective is to pursue profitable growth opportunities via organic expansions in India downstream and Novelis, strengthening the balance sheet by deleveraging, creating a clear road map for ESG and enhancing shareholder value.

Further, in FY2020-21 there were credit rating upgrades in Novelis and overall Hindalco. Novelis received credit ratings upgrades on its unsecured notes by both S&P Global Ratings and Moody's Investor Services in March 2021. Hindalco's Credit Rating Outlook was upgraded from 'Stable' to 'Positive' while reaffirming its present rating of 'AA' by CRISIL in April 2021

Greener Stronger Smarter with each step

Hindalco's ESG commitments include achieving net carbon neutrality by 2050. Net neutrality means for every tonne of carbon dioxide we put into the atmosphere, we take out one tonne from it, thereby achieving a balance. Our pursuits so far have led to a 17% reduction in specific energy consumption in Aluminium production as compared to the base year FY 2011-12 against our target of 25% reduction by 2025.

Our patented in-house energy conservation technology in smelting process is showing good results. This solution, which is being implemented in all our smelting pots in a phased manner, is leading to 200-300 KWH/T of savings post modification of the pot which we are scaling up to cover all pots.

In collaboration with other industries, we continue to strengthen waste utilisation and are confident of achieving our target of zero waste to landfill by 2030. With the constant efforts of our waste management taskforce, we have been able to achieve 80% solid waste recycling, a 15% increase from the previous year. Our aim is to reduce waste disposal to landfill by 5% year-on-year.

Our focus on increasing recycled content in manufacturing downstream products is stronger than ever with our subsidiary Novelis emerging as a leader in recycling with 61 % recycled inputs for all our products.

By 2025, we endeavour to become water positive in all our mining and downstream operations. The measures taken to minimise freshwater consumption are moving us steadily towards our goal of 20% reduction in specific freshwater consumption by 2025 from a baseline of 2019.

Our sustainability-first approach to business received global recognition with Hindalco being ranked as 'Industry Leader' in Aluminium Industry segment, in the 2020 Dow Jones Sustainability Indices. Industry Leaders are the top-performing companies in each of the 61 industries represented in the DJSI. Hindalco scored 75 points as against the industry average of 51.

17%

Reduction in specific energy consumption in Aluminium production

Through our CSR initiatives in India, we have touched the lives of more than

1.2 MILLION

People across 10 states

Reinforcing safety through human centric values

Sustainability thinking is embedded in our culture. We take the onus of our employees' overall wellbeing; endeavour to maintain workplace diversity and ensure equal opportunity for all. With 7% women in total workforce today, we are committed to enhancing our pool of women employees. We respect and uphold the human rights of all our stakeholders, a commitment we have made and live every day in accordance with our Human Rights Policy. A well-defined due diligence process helps us to identify potential risks across our operations.

A key Hindalco strength is our reliable and safe operations. Our safety culture is guided by a robust health and safety framework encompassing all the activities across the organisation. We are proud that all our operational facilities along with corporate offices are IMS (Integrated Management Systems) certified which includes ISO 9001, ISO 14001 and ISO 45001. The three-pronged approach involves felt leadership, world-class processes and practices and the right strategy for implementation. It has helped us to embed a safety culture to achieve 'zero-harm'.

COVID response

Hindalco strengthened efforts to protect employees across ranks and to support the community during COVID.

We have already covered 93% of employees including contract workers in our vaccination drive. Hindalco enhanced medical coverage to cover all COVID hospitalisation and home treatment of employees, families, contract workers, 3rd party employees and their families. We are also taking care of the rehabilitation of the families of deceased employees.

Plant hospitals and clinics extended quarantine and COVID care facilities to the community. Multiple dedicated medical teams across Hindalco worked round the clock to ensure our communities were taken care of.

A key Hindalco strength is our reliable and safe operations. Our safety culture is guided by a robust health and safety framework encompassing all the activities across the organisation.

Upholding the commitment of sustainable growth for all

Aligned with the United Nations Sustainable Development Goals (UN SDGs), our CSR strategies are framed to enhance community wellbeing and community development. Through our CSR initiatives in India, we have touched the lives of more than 1.2 million people across 10 states. This year, our community expenditure was ₹ 53.99 Crore.

Our performance is entirely due to the dedication and efforts of our people and I would like to thank every one at Hindalco for your relentless pursuit of the Company's goals and objectives. I am also immensely grateful and proud of the way Team Hindalco has navigated the challenges of the past year with resolve and commitment. It is a testament to the fact that no challenge is too big for us.

I am pleased to share with you the report for FY 2020-21, which is also our first Integrated Annual Report, detailing the value creation approach for our stakeholders. I welcome your valuable feedback and seek your continued support.

Satish Pai
Managing Director

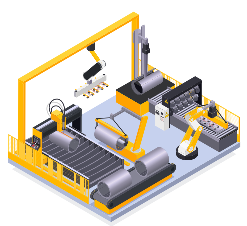
INTRODUCING OUR CAPITALS

Towards Inclusive Growth

At Hindalco, we are driven by our purpose of manufacturing products that make the world Greener, Stronger and Smarter. As part of our journey towards this goal, we have taken an integrated approach to achieve long-term value creation for stakeholders.

Financial Capital

Represents our financial resources which are utilised to create sustainable value while ensuring business continuity. Outcomes of the capital signify financial value creation for the Company.



Manufactured Capital

This includes inputs and outcomes aimed at meeting the market requirements with the help of our manufacturing capabilities, operational excellence, expansion projects and other operational details.

Human Capital

This represents our capabilities to enhance our people's experiences and competencies. Through talent management and investments in training and development, we aim to reach our outcomes of improving performance, safety and well-being of our people.

Hindalco introduced its first Capital Allocation Framework with the objective to pursue profitable growth opportunities via organic expansions in India downstream and Novelis, strengthen the balance sheet by deleveraging, create a clear roadmap for ESG and enhance shareholder value.

Intellectual Capital

This focusses on improving our intangible capabilities such as research and development and collaborations, resulting in the creation of intellectual property over a period of time. Adoption of innovative techniques is the prime focus of our intellectual capital.

Natural Capital

This focusses on meeting our business needs without compromising environmental sustainability. With our ESG commitment, we strive to minimise our environmental footprints and adopt ways of achieving our business goals through resource optimisation, environmental investments, and biodiversity assessment.

Social and Relationship Capital

This is aimed at ensuring the collective well-being of our stakeholder groups, primarily focusing on our communities, suppliers, vendors, and customers. This further helps us strengthen our ties and increase ease of doing business.

BUSINESS MODEL

Our Value Creation Approach

Volatile, Uncertain, Complex and Ambiguous External Environment

Inputs

Financial Capital
- ₹ **66,533** Cr Equity for FY 2020-21
- ₹ **65,994** Cr Gross Debt (down 1.9 % YoY) (Net debt to EBITDA improved significantly)
- ₹ **17,232** Cr Operating Cash flow (Higher by 35.2% YoY)

Manufactured Capital
- **48** Manufacturing facilities
- **1.3** MMT Net Production capacity
- **23** Operational Mines
- **1.1** Bn $ Project Spends

Human Capital
- **70,000+** Total Workforce
- ₹ **8.65** Cr Investment on training and development
- Talent Pool Management

Intellectual Capital
- ₹ **790.15** Cr R&D expenditure and allocated capex
- **259** Number of patents filed
- **9** R&D centers (India -3 and Novelis 6)
- Collaborations and memberships with academic institutions and industry associations

Natural Capital
- **9.64** MMT consumption
- **87.01** Mn m^3 Water consumption
- **255.18** Mn GJ Energy consumption
- ₹ **554.5** Cr Environmental investments
- Biodiversity conservation

Social and Relationship Capital
- ₹ **53.99** Cr Community expenditure
- **9,218** Total Tier-1 suppliers
- ₹ **27,442.82** Cr Procurement spend
- **1,804** Critical suppliers
- **2,639** Customer base

Stakeholders and value creation

Employees | Customers | Suppliers and Vendors | Communities and NGOs

Risk and Opportunities

Our Vision

To be a premium metals major, global in size and reach, excelling in everything we do, and creating value for shareholders

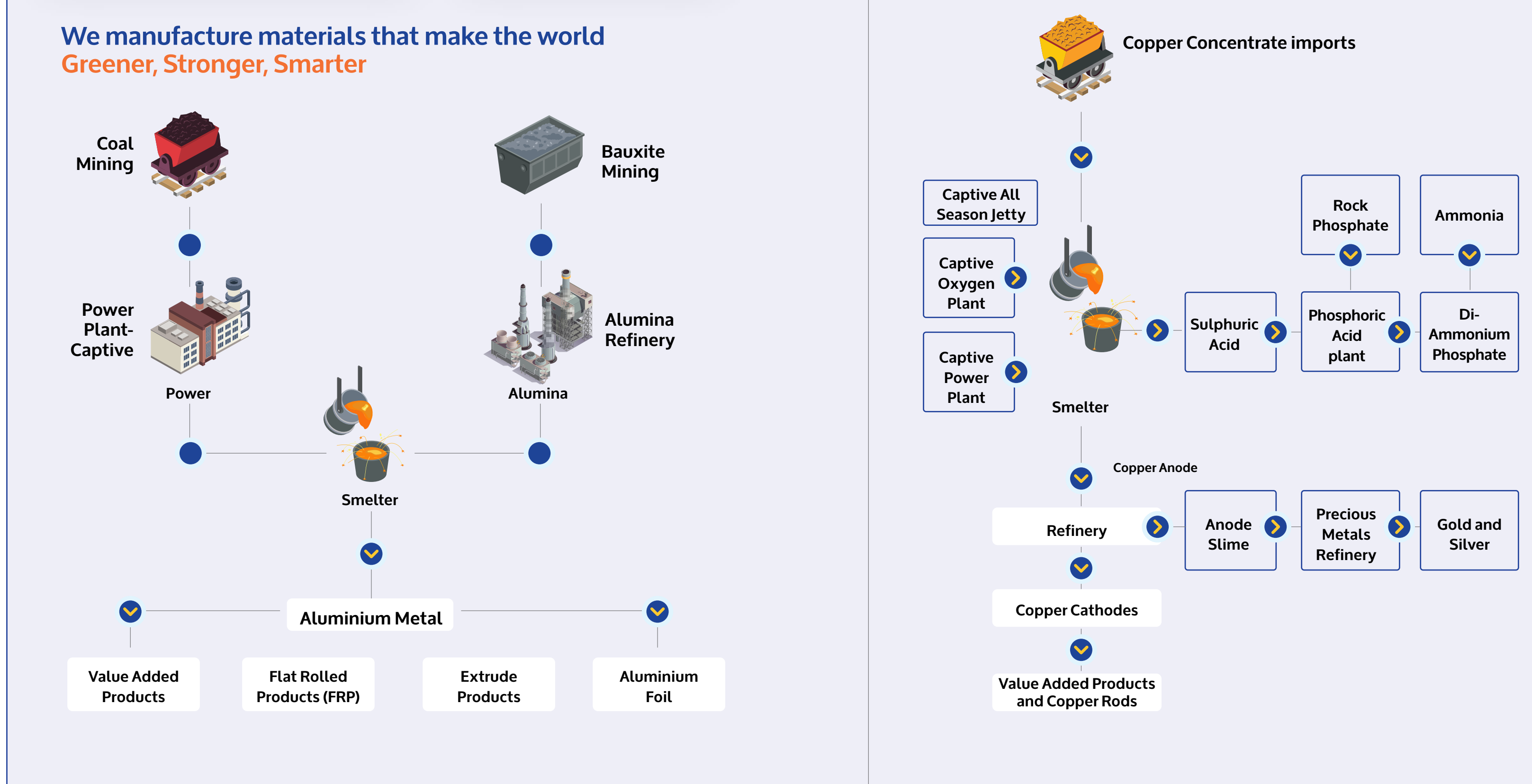
Our Values
- Integrity
- Commitment
- Passion
- Seamlessness
- Speed

Strategy and resource allocation

Strategic Priorities

Focus on Value-added products	Strong ESG commitment	Strengthening the balance sheet	Capital allocation to maximise shareholder returns

We manufacture materials that make the world
Greener, Stronger, Smarter



Performance | Outlook

Investors and Shareholders | Government and Regulatory bodies | Industry Associations | Media

Outputs

Planet friendly and future focused metals

Aluminium
- Aluminium Metal **(1.229 Mn tons)**
- Flat Rolled Products **(0.232 Mn tons)**
- Extrusion Products **(0.038 Mn tons)**
- Aluminium Foil **(0.019 Mn tons)**

Copper
- Copper Cathodes **(0.262 Mn tons)**
- Copper Rods **(0.235 Mn tons)**

Chemical
- Specialty Alumina **(0.25 Mn tons)**

Others
- Di-ammonium Phosphate and Sulphuric Acid
- Precious Metals (Gold and Silver)

Outcomes

Financial Capital
- ₹ **131,985 Cr** Revenue ₹ 12% YoY)
- ₹ **18,896 Cr** EBITDA (▲₹ 22% YoY)
- **2.59x** Net Debt/EBITDA

Manufactured Capital
- ₹ **168.74 Cr** saved in FY 2020-21 through the implementation of 2,658 Opportunities Ideas Concepts (OIC), Kaizens
- **Integrated Management System Certification** (ISO 9001, ISO 14001, ISO 45001) at Corporate and all locations.
- **500 Kt** expansion at UAIL (phase **1** due for commissioning)
- **34 Kt** planned for expansion Silvassa Extrusions

Human Capital
- **7%** Females in total workforce
- **Zero fatalities** for Permanent Employees
- **2.2 Million** Man hours of training provided
- **4.9%** Employee Turnover Rate
- **431** New Employees hired
- **85%** scored in Vibes survey (Employee engagement index)

Intellectual Capital
- **331** Number of patents granted
- **32** New products launched
- ₹ **165 Cr** of business due to new products
- Recognition for R&D Efforts

Natural Capital
- **0.68** million GJ Energy savings
- **17 %** Energy Intensity reduction for Aluminium from FY 2011-12
- **18%** GHG Emission intensity reduction from FY 2011-12
- **4.7%** reduction in Specific Water consumption in Aluminium from FY2019-20
- **80%** waste being recycled
- Environmental compliance
- **4672.2** acres Green cover
- **15** Locations with biodiversity management plan

Social and Relationship Capital
- **1.2+** Mn Lives Touched
- **58%**- NPS Score (Extrusion)
- **46%**- NPS Score (Foil)
- **1,128** Number of suppliers assessed

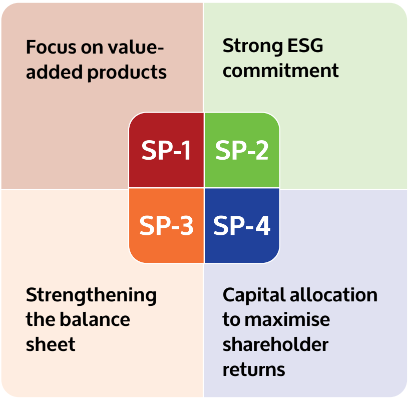
SDGs

STRATEGIC OVERVIEW AND RISKS LANDSCAPE

Putting Strategic Priorities in Place

With a focus on transforming our future through integration of people, planet and prosperity, we have grown from India's largest leading non-ferrous metals company to become a global leader in the Aluminium business. We have transformed our business model to reduce dependence on the volatile London Metal Exchange (LME) price movement and are focusing on a stable portfolio of value-added products.

We have set out clear strategic priorities for ourselves as we embark on the next phase of our growth journey.



Focus on Value-added Products

Our growth over the medium-term will come from our investments in the downstream business. This will continue to provide insulation from LME price movements and create stability in the overall earnings stream. Additionally, it will bring us closer to end customers and consumers.

Aluminium

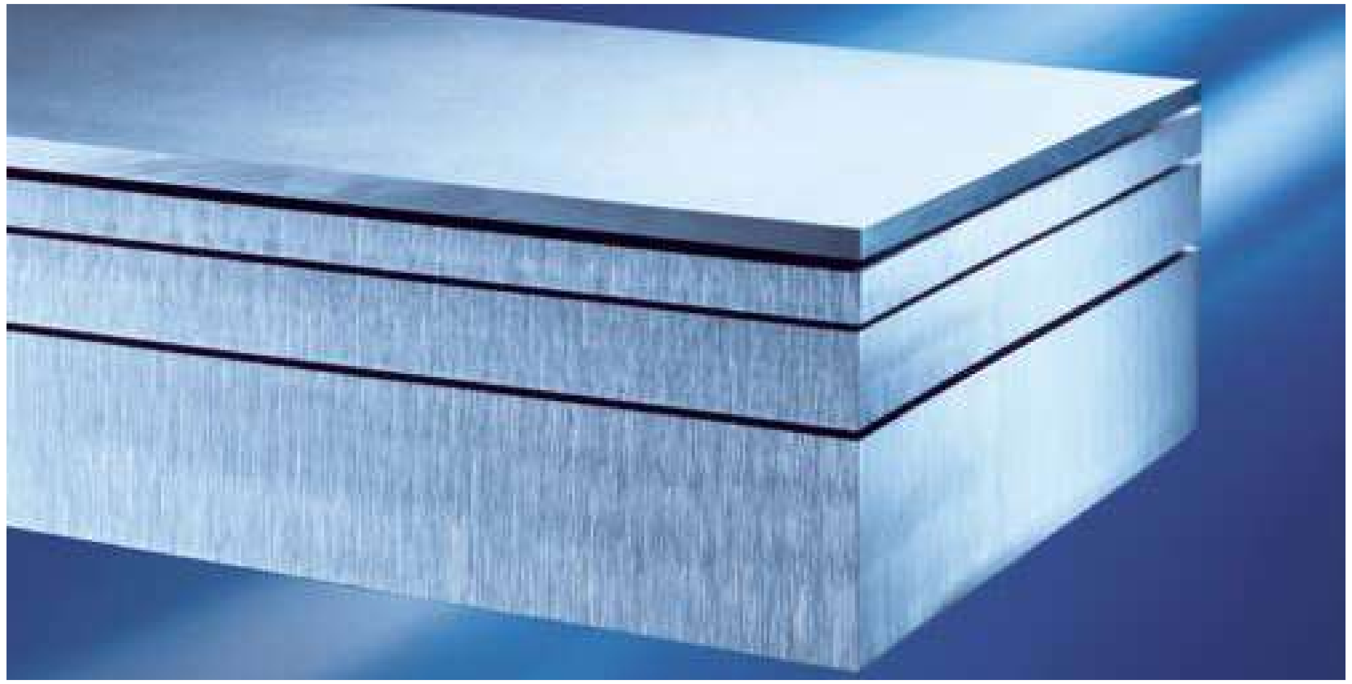
The dominant segments of Aluminium downstream viz. flat rolled products (FRP) and extrusions are under-represented in India, and per capita Aluminium consumption is significantly below the global average. Increasing aluminisation in industries, such as building and construction, transportation and packaging, offers significant market opportunity for our large and integrated operations.

Building and construction is expected to be the third largest sector in the world by 2030. Growth in this sector will be driven by increase in urban housing demand. Applications such as doors and windows, roofing, structural glazing and so on will result in increased use of Aluminium in this segment. We have also introduced an effective way to utilise bauxite residue for cement manufacturing, as a step towards circular economy.

There is high demand for Aluminium FRP from the premium and electric vehicles segment in the transportation sector. Demand for lightweighting and safety, including crash management system made of Aluminium to ensure safety and light weight, is expected to gain momentum. We are leveraging this opportunity to diversify our product portfolio. We are also considering low carbon products such as Aluminium buses and e-rickshaws as promising product offerings in the forthcoming years.

We have introduced innovative packaging solutions. One such example is Aluminium-foil-laminated jute bags as a substitute for plastic bags. Our other solutions in packaging include file stock, and bottle caps among others. Unique advantages of Aluminium over other forms of materials will help us grow in this segment significantly in the coming years.

In addition to the above, other areas where we are increasing our presence include electronics and electricals, consumer durables, Aluminium cookware, machinery and equipment, defence, nuclear, railways, ships and boat building among others.



High-strength Aluminium aerospace plate

Copper

Refined Copper consumption in India is expected to grow at 7-8% over the next 10 years, driven by electrical applications such as wires and cables, motor windings, transformer strips as well as infrastructure projects such as railways and Metro Railways. Today, we are the only large, refined Copper manufacturing plant in the country and the largest manufacturer of Copper rods. We plan to further increase the share of value-added products in our business, which will aid our margins and help us move up the value chain.


Refinery at Birla Copper, Dahej


Novelis was the partner of choice for the Aluminium-intensive Ford F-150

Specialty Materials

We also plan to expand our value-added products portfolio in our specialty alumina business, targeting opportunities in newer and high-growth application areas for our products.

Novelis's specialties portfolio serves a diverse array of markets around the world. We produce both light and thick gauge material including container foils, electronics, commercial truck and trailers. With the acquisition of Aleris, we have expanded our heat exchangers and building and construction applications to our portfolio.


Nursery at Utkal Alumina

Strong ESG Commitment

We believe that a balanced approach towards environmental, social and governance aspects of business is very critical for long-term success. We continue our focus on increasing the recycled input content in manufacturing. Further, we aim to achieve net carbon neutrality, zero waste to landfill, water positivity in all our mining locations, and no net loss on biodiversity by 2050. We have also made progress towards reducing air emissions by introducing the Flue Gas De-sulphurisation (FGD) systems at our various plant locations with an investment of ₹ 2,800 Cr. We are planning for these systems to be operational from April 2022 till 2025.

We aim at running our operations in a safe and secure manner with commitment to zero harm. Our people practices have a strong focus on diversity, inclusivity and upholding of human rights across our operations. We are committed to ensuring the well-being of communities and the larger society while creating a sustainable value.

2.5x

Targeted Net Debt to EBIDTA ratio

Strengthening the Balance Sheet

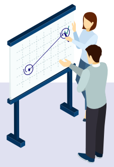
Over the next two years, we plan to strengthen the balance sheet for future growth and reduce our Net Debt to EBITDA ratio to 2.5x. This will be achieved through a $2.6 Billion debt reduction plan by Novelis and $0.3 Billion debt reduction plan by Hindalco.

$1.2 BILLION

Targeted consolidated cashflow

Capital Allocation to Maximise Shareholder Returns

Hindalco announced its Capital Allocation Framework for the next five years with respect to broad allocation of its consolidated operating cashflows after meeting maintenance capex and working capital requirements. The key focus of this framework is on pursuing profitable growth opportunities via organic expansions in both India downstream as well as Novelis, strengthening the Balance Sheet through deleveraging, and overall Shareholders value enhancement/ distributions of returns.



New projects in the pipeline

We intend to create value for our stakeholders by enhancing our capabilities across the value chain.

- 500 kt alumina expansion at Utkal, which is nearing completion
- Capacity addition for FRP and recycling over next few years
- Increase of specialty alumina capacity in the Aluminium business
- Increase of continuous Copper rod production capacity
- Develop capability for inner grooved tubes, alloy rods and recycling in Copper
- Expansion in cold mill capacity, auto finishing lines, rolling and casting capacity, and recycling capacity as part of Novelis

RISKS LANDSCAPE

Being Prepared at All Times

We are driven by the principle of being 'Predictive, Proactive and Prepared'. This entails developing an efficient process to proactively manage risks and crisis situations while ensuring business continuity.

The nature and scale of our operations alongside the interdependencies at various levels call for a flawless risk management system to deal with impact of external environment while ensuring efficient and environment-friendly operations. The year 2020-21 was a testing time of our resilience in crisis management and business continuity management as the COVID-19 pandemic forced the country to go into a lockdown from end of March-May 2020. Despite the challenges, we were able to keep our upstream plants operational during the lockdown and we exported majority of the output.

Our Risk Management Framework is designed to make the organisation more resilient and dynamic. As a player in the end-to-end value chain of metals and mining industry, we encounter a host of risks, driven by price volatility, regulatory changes, availability of natural resources, sustainability, community, global trade and so on.

Risk	Mitigation Plans	Strategic Priorities
R-1 Price Volatility	Aluminium, being an integrated business, is susceptible to commodity and currency movement. Copper, being a conversion business, is open to timing mismatch of pricing. The Company runs a robust hedging programme based on its risk appetite.	SP-1 SP-2 SP-3 SP-4 **Focus on value- added products**
R-2 Regulatory Risk – Change in rules and regulations and compliance with regulatory requirements	Bauxite and coal are the key inputs for Aluminium production. Both bauxite and coal mining and ownership are controlled by regulations. Frequent changes in rules and regulations are a risk which can affect cost and availability. To mitigate the risk, we actively engage with regulatory authorities on policy advocacy. We are complying with various laws and regulations, including environmental regulations. To mitigate the risk, we have systems in place to drive compliance across the organisation including technology to track any non-compliance.	SP-1 SP-2 SP-3 SP-4 **Strong ESG commitment**
R-3 Waste Management (including solid waste management)	Aluminium and Copper production generates solid waste and burning coal in power plant generates ash. To mitigate the risk, we are working with some potential users of the solid waste. The target is zero landfill with waste.	SP-1 SP-2 SP-3 SP-4 **Strong ESG commitment**
R-4 Increased import of downstream products in Aluminium	Currently 60% of the Aluminium consumption is imported even with enough domestic capacity. To mitigate the risk, we are actively engaging with the government for necessary policy changes and also with potential customers to reduce imports.	SP-1 SP-2 SP-3 SP-4 **Capital allocation to maximise shareholder returns**

Risk	Mitigation Plans	Strategic Priorities
R-5 Emissions and climate change	The Global Risks Report 2021 by the World Economic Forum highlights the likelihood and impact of environmental risks. Our business operations are dependent on the natural resource intake and these operations have certain implications on the environment. Our Risk Management Framework takes into account the identified environmental vulnerabilities related to climate change, water availability, land degradation, land availability and extreme weather events. We have formulated plans to minimise our impact on the environment and mitigate environmental and climate change related risks. We have also undertaken Task Force on Climate-related Disclosures (TCFD) based assessment to identify climate related risks and formulate effective mitigation strategies for the long run. This assessment is expected to be completed by during the year 2021. Further, we have streamlined our processes to minimise our carbon footprint in order to achieve our goal of 'Net Zero Carbon' by 2050. Based on the global target of limiting the temperature to 2DS, as well as a possible change to the National Determined Contributions(NDCs), we have developed an Internal Carbon Pricing (ICP) for all our operations to formulate more stringent policies for our carbon emissions based on 3 scenario analysis which we have developed viz. National Regulatory scenario, Emission Trading Scheme and Science Based Targets.	SP-1 SP-2 SP-3 SP-4 **Strong ESG commitment**
R-6 Financial leverage	Aluminium and Copper are capital-intensive industries. Since the operating leverage is high, especially in the upstream business, the target is to keep financial leverage low. We have financial policies in place and expenditures are planned to keep the leverage within the policies.	SP-1 SP-2 SP-3 SP-4 **Strengthening the balance sheet**
R-7 Water stress mitigation plans	Two sites have been identified as high-risk as per assessment by IWT and water risk mitigation plans are in place.	SP-1 SP-2 SP-3 SP-4 **Strong ESG commitment**
R-8 Occupational health and safety mitigation plans	Coverage of people working at our sites along with their extended families living in our plant colonies, often located in remote areas and safeguarding them from the threat of infectious diseases.	SP-1 SP-2 SP-3 SP-4 **Strong ESG commitment**

Biodiversity from Hindalco sites at a glance

Mitigating risks on the horizon

In addition to the above mentioned list of risks, we also have identified two important emerging risks – Decarbonisation and Biodiversity loss. These risks can affect our business in the long run. The demand for green Aluminium will increase in the upcoming years as reducing sectoral carbon footprint has been on the rise. Our operations are carbon intensive as it largely depends on power from the grid or from coal fired power plants. Substituting carbon intensive fuels with greener alternatives such as natural gas and renewable energy would take certain timeframe and transformation which in turn would have an impact on revenue generated from primary Aluminium. In our attempt to make our business practices more sustainable, we have committed to becoming net zero by 2050. We have taken several measures such as close monitoring of our energy consumption and GHG emission parameters along with major strategic initiatives at corporate level to upgrade to a low carbon technology across operations.

Biodiversity loss has been identified as one of the top risks per the Global Risk Report 2021 by WEF. Mass degradation of natural habitats has led to a fall of more than two-thirds of wildlife population in the last 50 years. This loss threatens the ecosystem of the environment. With the growing recognition, there have also been various local and global regulatory changes to preserve biodiversity losses. Mismanagement of biodiversity losses has the potential to disrupt the supply chain as well as pose challenges in acquiring legal licenses. Thus, due to our reliance on activities such as mining which are linked to rising regulatory compliances to safeguard biodiversity, mismanagement of this risk can lead to disruptions to our activities and it has the potential to cause reputational, regulatory, and financial risks to the business. In order to combat these issues, we have conducted an IBAT study in association with IUCN, which concluded that 2 manufacturing and 6 mine sites in India are in high risk zones. Details of measures are provided in the Biodiversity section under Natural Capital.

Risk Management Process

RISK IDENTIFICATION AND RISK ASSESSMENT
Identify, recognise and describe key risks and use

RISK MANAGEMENT AND MITIGATION
Developing measures and actions to eliminate, manage or reduce the identified risks to acceptable levels

RISK MONITERING AND REPORTING
Periodical monitoring the status of a risk to identify change from the existing performance level and communicating the findings to relevant stakeholders

Risk Management Framework and Governance

Our Risk Management Framework considers various aspects of our operations such as production, mining, waste management, disposal, and energy generation while focusing on ESG performance parameters like responsible procurement, community initiatives, employee health and safety, and environmental stewardship among others. The framework considers environmental vulnerabilities such as land degradation, climate change, water use, and land use.

The framework enables us to identify both short and long-term risks including emerging risks. Short-term risks include technological, operational and business risks, while long-term risks cover business model risks and strategy and reputational risks. Different types of known risks are covered in the risk registers at the Company level, business level, department level and site level. Furthermore, efforts are made to identify unknown risks as well through scenario planning.

All identified risks are enlisted based on "severity" and "likelihood" of a risk event. The risk reporting tool classifies consequences into incidental, minor, moderate, major and extreme. Likelihood is categorised as rare, unlikely, possible, likely and expected. Risk Heat Map is plotted based on above two classification and subsequently relevant mitigation strategies are established for each risk. This is carried out keeping in view the short-term and long-term impacts of all these risks to the organisation. Our governance and business strategies are framed keeping in view these risks.

We have a robust governance structure that clearly highlights the risk management responsibility at various levels. The governance structure is led by the Risk Management Committee of the Board of Directors, including the Managing Director, and the Committee is responsible for reviewing the organisation's risk management processes. Through the Risk Management Committee, the senior management periodically reviews the Risk Management Framework. Operational risks and challenges are identified by site-level risk teams.

Our Risk Evaluation Framework focusses on understanding the likelihood/possibility of a risk event and the severity of the impact of that risk event. The risk reporting tool classifies consequences into incidental, minor, moderate, major and extreme and categorises likelihood into rare, unlikely, possible, likely and expected. The identified risks are plotted in a matrix based on the aforementioned parameters.

Trainings specific to the ERM process are also provided to the management. This gives non-executive directors an understanding of the risk management framework of Hindalco as well as the ongoing risks and those that can emerge in the future. In addition to this, the risk management function is structurally independent of the business lines.

Sensitivity analysis is done on strategic risks and forex & commodity risks, as well as plant wise operational risks and risks of non-compliance. We also conducted stress testing and sensitivity analysis of the risk of COVID -19 at our respective sites.

At the Company-level risk assessment also includes the life-cycle environmental impacts of our products and external climate change related activities. At the asset level, risk is assessed based both on the potential for future growth and operational risks. We continuously assess the exposure of our facilities to climate change related impacts.

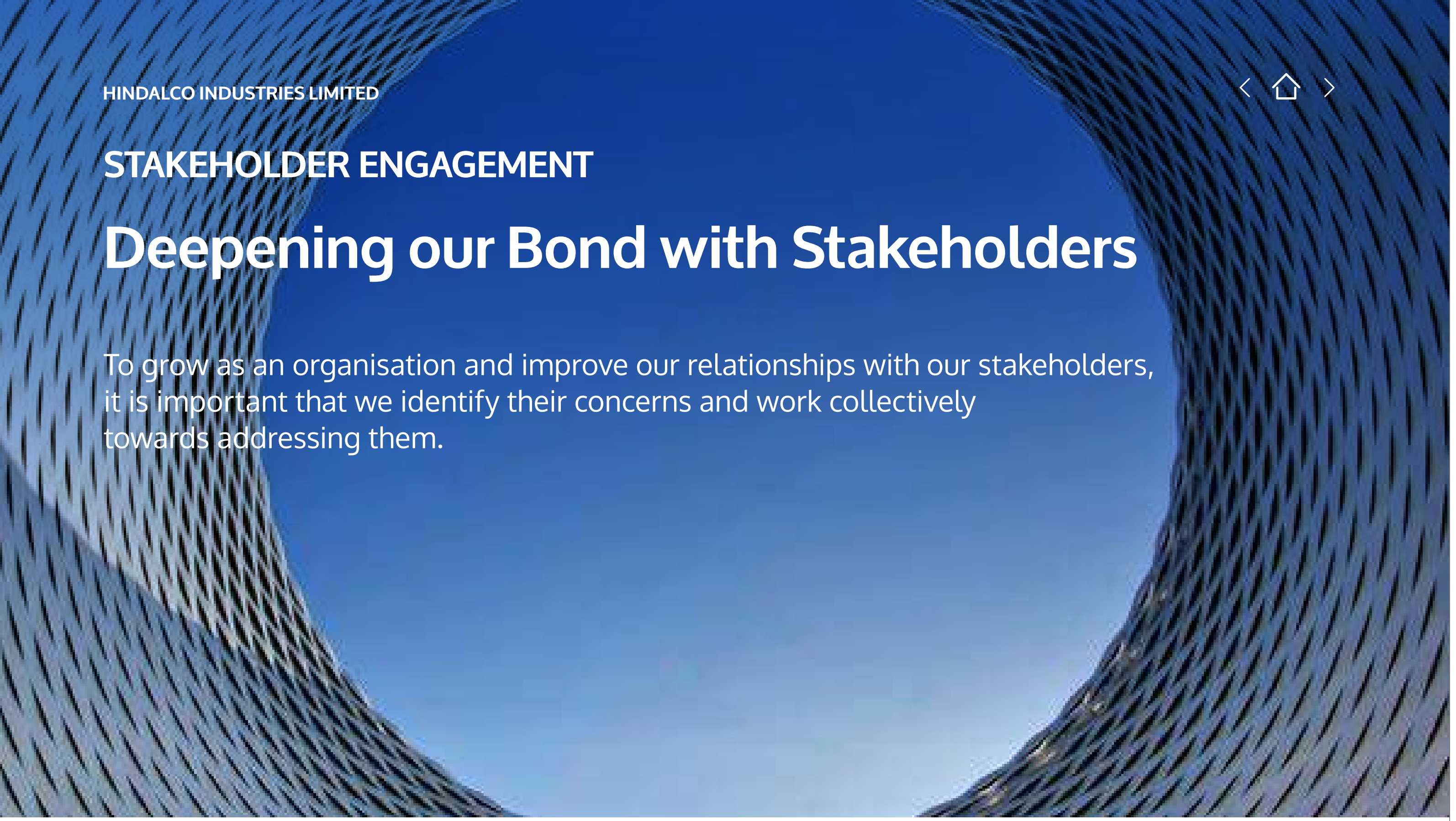
Risk culture, monitoring and reporting

Senior executives are accountable for enterprise risk management for their respective areas of oversight and implementation of risk management ensuring compliance to risk procedure. As a part of the process, the business unit or functional leader is responsible to select a Risk Champion who owns the risk management process at a functional level. We have started conducting refresher course on Risk Management for all employees across all our sites to build a strong culture of risk management across operational aspects.

We are in the process of augmenting our risk management capability by taking measures such as appointing Risk Champions at each site, sharing templates of risk registers with each department and directly approaching the central risk management team. Risk reporting by an employee is being acknowledged by the organisation and is also accounted during the annual appraisal process. There is a formal procedure in place to involve employees to proactively identify and report potential risks throughout the organisation.

Our initiatives allow employees to voice concerns without the fear of retaliation. There exists a continuous feedback mechanism via workshops and via risk champions. This helps to receive feedback from employees on the risk management practices and approach used to spread awareness on risk management.

As part of product development process, criteria around risk management are incorporated during every stage of the process. This includes a detailed exercise to map common and latent risks, assess their impact on project schedule, costs, manpower and resource requirements, to devise measures for risk prevention and mitigation.



STAKEHOLDER ENGAGEMENT

Deepening our Bond with Stakeholders

To grow as an organisation and improve our relationships with our stakeholders, it is important that we identify their concerns and work collectively towards addressing them.

We regularly engage with our stakeholders to understand their expectations and fine tune our business strategy and objectives. We have our Group-level stakeholder engagement policy in place, which acts as a guiding principle for the stakeholder engagement process.

Identifying and prioritising key stakeholder groups → **Engaging with key stakeholders within each stakeholder group** → **Understanding stakeholder expectations and developing action plans to address concerns, if any**

Our stakeholders comprise employees, customers, suppliers and vendors, communities, investors and shareholders, and others. The level of engagement depends on the stakeholder group and the communication is carried out through various engagement channels such as website, newsletters, social media and by conducting surveys.

Stakeholder	Frequency of Engagement	Modes of Engagement	Key Concerns and Expectations	Our Approach
Employees	Continuous	• Emails and meetings • Intranet portals • Employee satisfaction surveys • Training programmes • Performance appraisal reviews • Employee engagement programmes • Grievance redressal mechanism • COVID-19 Care	• Equal opportunities and wages • Training and skill development with career growth • Employee well-being • Occupational health and safety • Transparent communication • Medical facilities and operational continuity	• 67% of workforce are covered under provision of collective bargaining at Hindalco • 100% compliant in terms of payment in minimum wages • Providing technical and behavioral training • E-learning events and development programmes by Hindalco Technical University • Awareness programmes on health and wellness • Fatality prevention programme • Disaster management plan • Sufficient notice period regarding any significant operational change • COVID-19 management

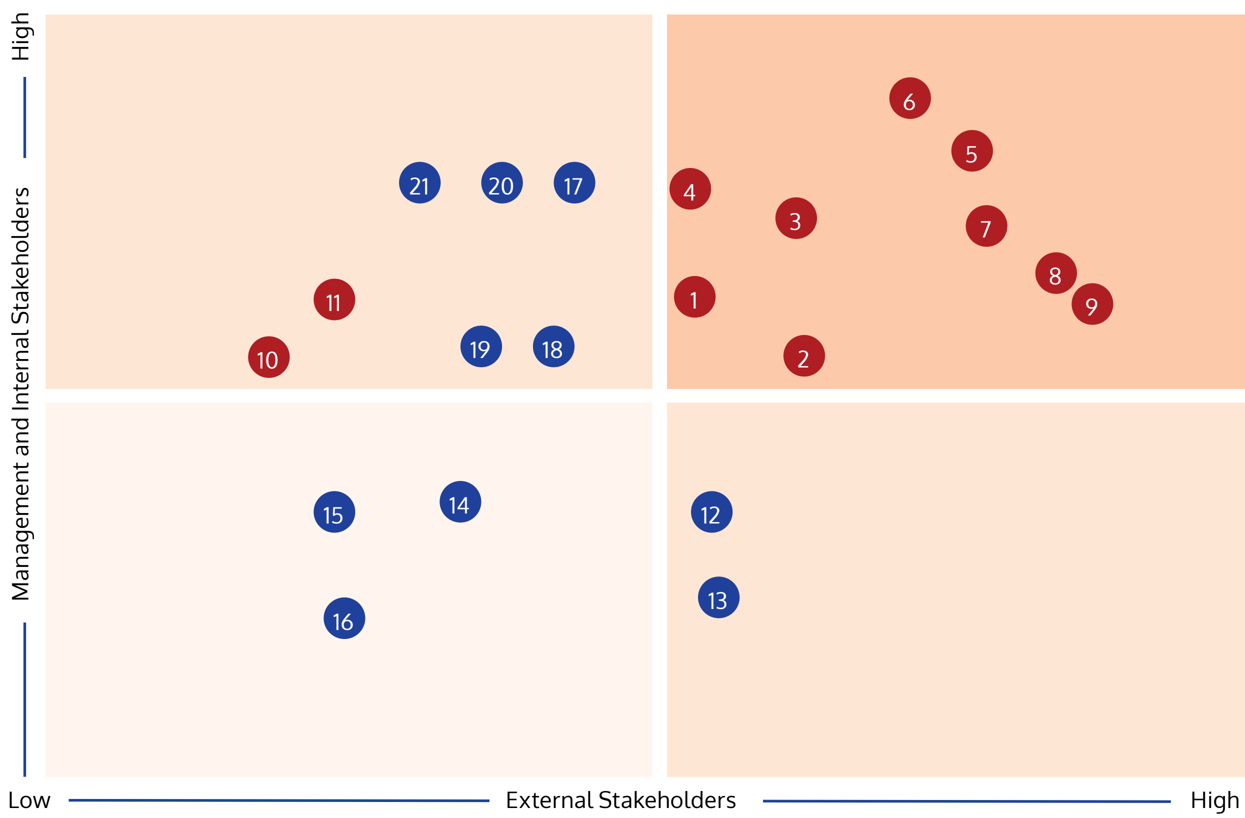
Stakeholder	Frequency of Engagement	Modes of Engagement	Key Concerns and Expectations	Our Approach
Customers	Continuous	• Emails and meetings • Customer satisfaction surveys • Grievance redressal mechanism	• Post-sales support • Chinese and local competition	• Key account management to ensure best possible servicing • Net Promoter Score Model, combination of top down and bottom up approach • Production of Aluminium and Copper with LME specification
Suppliers & Vendors	Continuous	• Emails and meetings • Vendor assessment and review • Supplier audits • Training workshops and seminars • Stakeholder engagement surveys	• Continuity of orders • Capacity building • Pricing and negotiation	• Policy for supply chain and procurement • Supplier code of conduct • Risk assessment for suppliers • Contractor safety management system • Management framework involving ethics and transparency
Communities	Continuous	• Stakeholder engagement surveys • Training and workshops • Regular meetings • Need assessment and satisfaction surveys • CSR reports • COVID-19 Care	• Infrastructure development • Training and livelihood programmes • Local employment • Participation in social services • Community spread	• Development of community infrastructure in villages such as approach roads, check damns and bus stops • Providing skill development programmes for women • Focus on livelihood and skill development programmes • Social awareness camps • Responsible mining • Focus on societal reforms • Conducting socio-economic baseline study and assessment • COVID-19 awareness and provision of medical aid
Investors and Shareholders	Quarterly	• Board meetings • Annual Reports • Newsletters • Regular business interaction	• Sustainable growth and returns • Market share • Operational performance • Risk management • Corporate governance	• Continuous operational performance • Focusing on cost optimisation and value-added products • Enterprise risk management framework • Corporate governance framework
Government & Regulatory Bodies	Periodically or Annually	• Annual Reports • Communication with regulatory bodies • Formal dialogues	• Tax and royalties • Pollution prevention	• Regular payment of applicable taxes and royalties • Adoption of cleaner technologies and strengthening of emission monitoring • Adoption of renewable energy
Industry Associations	Periodically	• Meetings	• Regulations, compliance with industry standards • Business collaborations	• Participation in meetings, conferences and discussions related to industry
Media	Periodically	• Digital platforms such as social media and websites • Press releases • Interviews	• Community relations	• Transparent communication • Communication of our initiatives through integrated report

MATERIALITY ASSESSMENT

Determining our Priorities

During the reporting year, we reviewed our list of material topics from the perspective of relevance and applicability. We had carried out an extensive stakeholder engagement exercise in 2019-20 to identify critical ESG that are material to the organisation and potentially have a significant impact on our business.

The material topics were identified based on interaction with our internal and external stakeholders after considering various other relevant factors such as industry research, benchmarking of internal and external forces, referring to key ESG frameworks such as GRI Standards. The materiality matrix presented here indicates the list of material topics identified this year and their reference in the Integrated Report.



1. Market Presence
2. Waste and Hazardous Materials Management
3. Energy & GHG Emissions Management
4. Air Emissions
5. Compliance Management
6. Water Management
7. Occupational Health and Safety
8. Product Stewardship
9. Macro-Economic Fluctuations
10. Diversity and Inclusion
11. Employee Well-Being
12. Material Management
13. R&D Innovation and Technology
14. Supply Chain Transformation
15. Land Use
16. Biodiversity Impacts
17. Ethics and Integrity
18. Community Relations
19. Security and Human Rights
20. Artisanal and Small-Scale Mining
21. Economic Performance

Material Topic	GRI topic	SDG Alignment	Reference in the Integrated Report	Alignment with Strategic Priority and Risks
Market Presence	Non-GRI topic	–	Manufactured Capital	SP-1 R-1
Waste and Hazardous Materials Management	Effluents and Waste	12	Natural Capital	SP-2 R-3
Energy and GHG Emissions Management	Energy	12, 13	Natural Capital	SP-2 R-5
Air Emissions	Emissions	13	Natural Capital	SP-2 R-5
Compliance Management	Environmental Compliance	–	Natural Capital Social and Relationship Capital	SP-2 R-2 R-5 R-8
Water Management	Water	6	Natural Capital	SP-2 R-5
Occupational Health and Safety	Occupational Health and Safety	8	Human Capital	SP-2 R-2 R-8
Product Stewardship	Marketing and Labelling	12	Intellectual Capital	SP-1 R-4
Macro-Economic Fluctuations	Economic Performance	-	Financial Capital Manufactured Capital	SP-3 SP-4 R-4 R-6
Diversity and Inclusion	Diversity and Equal Opportunity	5, 10	Human Capital	SP-2 R-2
Employee Well-being	Employment	8	Human Capital	SP-2 R-2 R-8

R-1
Price Volatility

R-2
Regulatory Risk – Change in rules and regulations and compliance with regulatory requirements

R-3
Waste Management (including Solid waste management)

R-4
Increased import of downstream products in Aluminium

R-5
Emissions and Climate Change

R-6
Financial Leverage

R-7
Water Stress Mitigation Plans

R-8
Occupational Health and Safety Mitigation Plans

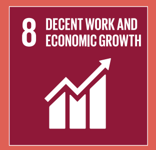
FINANCIAL CAPITAL

Managing the Tills Prudently

At Hindalco, the core focus of the finance function is to have a strong balance sheet with a comfortable net leverage ratio and a strong liquidity position for working capital requirements.

This focused approach and strategy has sustained our Indian and global operations whilst addressing the financial constraints and challenges presented by the pandemic.

Contribution to SDGs



Interlinkages with Material Topics and other Capitals

Material Topics	Capitals Connected
Market Presence	Financial Capital
Macro-Economic Fluctuations	Human Capital
	Natural Capital
	Intellectual Capital
	Social and Relationship Capital

Alignment with Strategic Priorities

SP-3: Strengthening the balance sheet

SP-4: Capital allocation aimed to maximise shareholder returns

CONSOLIDATED FINANCIAL HIGHLIGHTS

₹18,896 CRORE
EBITDA
(▲22% YoY)

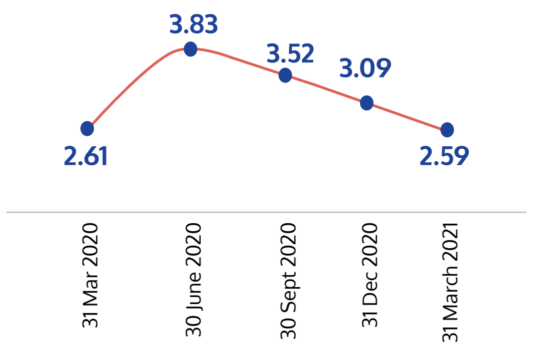
₹17,232 CRORE
Operating Cash Flow
(▲35% YoY)

2.59x
Net Debt / EBITDA
(vs 3.83x as of June 2020 post Aleris Acquisition)

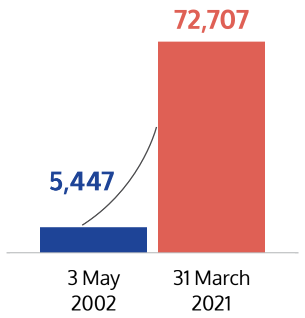
Shareholder Value Creation

Hindalco with its capital allocation framework in place, has a clear roadmap for deleveraging and profitable growth via organic expansions. This is aimed at enhancing the shareholder value and distribution of shareholder returns. The Market Capitalisation of the Company has grown at a robust CAGR of 14.6% since listing on the bourses on 3 May 2002 at a capitalisation of ₹ 5,447 crores to ₹ 73,433 crores as on 31 March 2021. An investment of ₹ 1,000 on listing day would be valued at ₹ 11,646 as on 31 March 2021, excluding dividend pay-outs.

Consolidated Net Debt to EBITDA (x) Trend



Market Cap. (₹ in Crores)



Economic Value Creation (FY 2020-21)

(₹ Crore)

Particulars	FY2019-20	FY 2020-21
Revenue from Operations	1,18,144	1,31,985
Other Income	1,186	1,222
Economic Value Generated	**1,19,330**	**1,33,207**
Operating Costs	77,966	85,228
Employee Wages and Benefits	8,832	10,782
Payment to providers of capital	4,197	3,738
Payments to government	1,541	1,881
Community Investments	34	56
Depreciation and other expense	22,065	24,955
Economic Value Distributed	**1,14,635**	**1,26,640**
Economic Value Retained*	**4,695**	**6,567**

* Economic value retained = Direct economic value generated - Economic value distributed

Focus Areas

Capitalising on organic expansion in Novelis and India to drive revenue and EBITDA growth	Product mix, Cost Optimisation, synergistic benefits driving Margin Accretion	Strengthening the balance sheet	Value creation through capital allocation for Pursuing Profitable Organic Growth Opportunities

Capitalising on the Organic Expansion of Novelis and India Business to Drive Revenue and EBITDA Growth

Novelis is the world's largest flat rolled Aluminium producer and world's largest recycler of Aluminium, with presence across North and South America, Europe, and Asia. It supplies lightweight infinitely recyclable Aluminium sheets and is focused on growing high-margin product segments of beverage packaging, automotive body sheets, aerospace, and other specialty products. With the recent acquisition of Aleris, and its focus on organically increasing rolling, automotive and recycling capacity, Novelis is well-positioned to capitalise on the rising demand across these product markets to drive revenue and EBITDA growth.

Besides, the recession resistant, high-recycled content Aluminium beverage packaging sector is growing at a healthy pace driven by customers' increasing preferences for sustainable packaging solutions. Novelis's global footprint and flexible capabilities in this diverse value stream enables capacity and product portfolio optimisation to facilitate revenue growth.

In India, the focus continues to remain on downstream that constitutes value-added offerings, primarily in the FRP and extrusions segments. With the market segment presenting sizeable untapped opportunities, we are committed to deploying resources to transform this vertical into a future EBITDA growth driver.

Indian demand for Aluminium lags behind global demand by a significant margin.

This, along with the lower per capita consumption of Aluminium, bodes well for robust demand growth in the medium to long term. The packaging, construction and transportation sectors also remain underpenetrated in India compared to global standards, thereby presenting substantial growth avenues that we are well-placed to explore and capitalise on.

The Titanic Signature Building in Belfast, Ireland, is clad in more than 120 tons of Novelis J57S® anodized Aluminium

Our market position as the largest organised operator in FRP segment, places us in a commanding position to tap the opportunities in this high-growth segment. Extrusion is another focus area where our capabilities will further consolidate our position in this segment.

Product mix, Cost Optimisation, synergistic benefits driving Margin Accretion

Internal cost control is an effective approach towards margin accretion. The other approach is to improve the product mix and focus on value-added product offerings.

Product Mix

Novelis continually strives to enhance its product mix. While beverage packaging remains core to the portfolio, Novelis is focusing on producing lightweight Aluminium flat rolled automotive structures and components to reduce the weight of the vehicles, thereby improving fuel efficiency, safety, and vehicle performance. In addition, steadfast global adoption of electric vehicles also enhances the Aluminium requirement of OEMs with respect to its use in both the body of the car and battery plates and boxes. While demand from aerospace is anticipated to remain muted in the near term due to reduced air travel, the long-term demand fundamentals remain in place. The diverse specialties end market also has significant tailwinds driving demand, particularly in the electronics, building and construction, foil packaging and truck trailer markets.

Our emphasis on Copper and specialty alumina value-added product (VAP) offerings that yield higher margins, is expected to have a positive impact on our long-term margin profile. The Company is poised to be a major beneficiary of the gradual increase in demand for Copper Continuous Cast (CC) rods, Copper alloys and inner grooved tubes over the medium-to-long term, all of which are high-margin offerings. The future demand for specialty alumina VAPs will be driven by their application in lithium ion batteries, LED lighting driving electrification programmes, advanced ceramics and integrated electronic chips, all leading to higher margins.

VAP offerings

In Copper and specialty alumina to yield higher margins

Caster at Birla Copper, Dahej. Hindalco's Copper division, Birla Copper, is registered on the London Metal Exchange as a Grade-A Copper brand

Cost Optimisation Initiatives

Novelis has a balanced approach towards driving manufacturing excellence and improving return on capital employed (RoCE). This includes strict adherence to preventive maintenance at the plants to reduce unplanned downtime and improve operational efficiency, product quality and recovery. These enhanced efficiencies lower cost and increase capacity, while improving product quality and reliability, leading to higher sales and stronger customer relationships. Novelis also maintains a competitive cost structure by utilising a greater volume of scrap inputs in its products. The increase in the use of recycled content, lowers costs while driving forward our commitment to sustainability. We will continue to ramp up the utilisation of recycled content to sustain the competitive cost structure and improve operational efficiencies.

In terms of our Indian operations, expansion of the Utkal Alumina refinery will increase operational efficiencies even as we continue our investments to modernise the existing alumina capacities, leading to improvement in the quality of output and on-site cost efficiencies. Investments in revamping older alumina refineries, such as the Renukoot refinery, are expected to reduce operating costs of these refineries in the future. The recently acquired Chakla coal mine is expected to be operational in the next two-three years. This will assure coal security at a lower cost. With modern equipment in place, we expect this to reduce the overall blended cost of coal.

Synergy from Aleris Acquisition

With the acquisition of Aleris, Novelis has been able to diversify its offerings and portfolio with its foray into aerospace and expand its presence in the high-end building and construction specialty business. The acquisition of Aleris contributed $200 Million to Novelis' adjusted EBITDA in FY 2020-21. Our core focus remains on integrating continuing operations and deriving value from the synergy. We have identified extensive combination cost synergies of approximately $120 Million, through cost savings in the areas of general management, procurement, finance, IT, and other General and Administrative (G&A) expenses, which will accrue over the next two years.

Further, approximately $65 Million worth strategic synergy is expected from the integration of Asian operations, with the China cold mill expected to commence operations in the next two years. This will be an outcome of creating efficiencies from scrap consumption, cost savings from the elimination of import duties, and significantly reduced transportation costs. In addition, the measures will release capacity in the legacy Novelis South Korean rolling mills, aiding the maximisation of new market opportunities in the coming years.

$200 MILLION

Aleris' contribution to Novelis' adjusted EBITDA in FY 2020-21

Strengthening the Balance Sheet

Deleveraging

Novelis has committed to a $2.6 Billion gross debt reduction plan by the end of FY 2021-22, from its recent high in June 2020 at the time of Aleris acquisition completion. At the end of 2020-21, $2 Billion of gross debt has been repaid. At the end of FY 2020-21, Novelis' net leverage ratio was 2.9x, a significant and rapid improvement compared to 3.8x on June 30, 2020.

Hindalco, on a consolidated basis, continues to strengthen its balance sheet with robust cash generation both in India and overseas, while accelerating the pace of deleveraging to reach the optimum leverage of below 2.5x in the next 2 years

$2.6 BILLION

Novelis' target of gross debt reduction by FY 2020-21

Pursuing Profitable Organic Growth Opportunities

Growth Capex

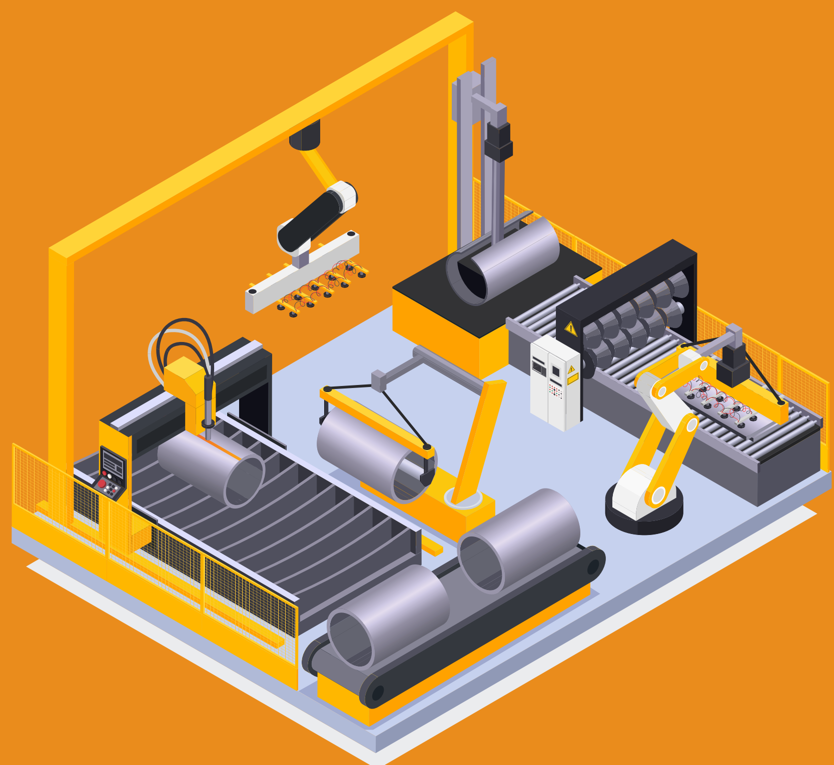
Capital Allocation framework is aimed at pursuing profitable growth opportunities via organic growth expansions in both India Downstream and Novelis. Novelis has identified over $1.5 Billion of growth capex opportunities over the next five years. This expenditure will be towards the setting up of a cold mill in China to achieve strategic synergies in Asia, together with enhancement of recycling and casting capacity, debottlenecking and other rolling capacity expansions, expansion of automotive finishing capabilities, as well as digital, R&D and other leading manufacturing initiatives to drive efficiency, innovation and meet our sustainability goals.

In India operations, the capital allocation for the identified expansion projects planned at ~$1.1 Billion, comprising $650 Million for downstream Aluminium projects (including finishing assets, extrusion, FRP and recycling capacities), $200 Million for downstream Copper capacities (including inner groove tubes and alloy rods, and Copper CCR) and $40 Million for the value-added specialty alumina business.

The acquisition of Aleris has helped Novelis diversify its offerings.

MANUFACTURED CAPITAL

Improving Operational Excellence



With more than 48 manufacturing locations, we are proud to be one of the largest Aluminium and Copper producers across the globe. We are proud to be a company manufacturing key metals required to achieve sustainability through electrification, lightweighting and decarbonisation, thereby standing true to our purpose of making the world greener, stronger and smarter.

Contribution to SDGs

Interlinkages with Material Topics and other Capitals

Material Topics	Capitals Connected
Market Presence	Financial Capital
Macro-Economic Fluctuations	Human Capital
	Natural Capital
	Intellectual Capital
	Social and Relationship Capital

Alignment with Strategic Priorities

SP-1: Focus on Value-Added Products
SP-2: Strong ESG Commitment

HIGHLIGHTS

15
Manufacturing locations in India

33
Operating locations of Novelis – a global leader in Aluminium recycling and largest Aluminium FRP producer globally

Utkal
Among the most economical producers of alumina in the world

Dahej
Largest custom Copper smelter at a single location in Asia

20 BAUXITE MINES
Operational across four states in India

3 COAL MINES
Operational across two states in India

Production Capacity

3.0 MMT
Alumina

1.30 MMT
Aluminum Metal

0.320 MMT
Aluminium VAP (FRP+Extrusion)

0.421 MMT
Copper Cathode

0.315 MMT
Copper Rods

0.4 MMT
DAP

4 MMT
Rolling capacity of Novelis operations

2.5 MMT
Recycling capacity of Novelis operations

Focus Areas

Manufacturing products that are Greener, Stronger and Smarter	Continuous improvement of our systems and processes	Reliable and safe working facilities

Power plant control room

Our manufacturing capability, equipped with robust operational control measures, forms the core of our business. We nurture our capabilities through various initiatives focussed on achieving operational excellence and capacity enhancement. Hindalco's manufacturing operations span across the entire value chain in Aluminium and Copper manufacturing. Our Aluminium operations encompass operating bauxite and coal mines, alumina refineries, smelters and manufacturing value-added products. These are supported by captive power plants at respective locations, including renewable energy capabilities that are being added year on year.

Our Copper operations encompass Copper smelter, refinery and manufacturing of value-added products. The Copper operations also include the oxygen plant, sulphuric acid plant and precious metals refinery. All our manufacturing operations are supported by captive power plants at respective locations.

Our international operations are driven by our wholly-owned subsidiary, Novelis, which focusses on flat rolled products and is a global leader in Aluminium recycling. With a rolling capacity of 4 MMT, Novelis is also the leader in Aluminium rolling operations across the globe.

Production during FY 2020-21

	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Alumina ('000 MT)	2,709	2,893	2,768	2,699
Aluminium Metal (Primary) ('000 MT)	1,291	1,295	1,319	1,229
Flat Rolled Products ('000 MT)	268	289	291	232.59
Aluminium Extrusions ('000 MT)	45	47	41	37.54
Aluminium Foils and Converted Products ('000 MT)	14.47	17.47	17.9	18.8

(In MT)	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Copper Cathode ('000 MT)	410	347	326	262
Copper Cast Rods ('000 MT)	156	245	245	235

Pot tending crane in operation at Aluminium Smelter

Operational Excellence

Operational excellence is one of the most important aspects of Manufactured Capital. To enhance it, we have taken up several initiatives such as Maintenance Strategy and Execution Framework (MSEF), introduction of Opportunities, Ideas and Concepts (OICs) and so on. We carry out world class manufacturing at our operations and our initiatives to improve the current processes towards achieving both operational excellence and profitable growth.

We focus on strengthening the management systems and processes as part of our operational excellence journey. Our corporate office and 15 manufacturing locations are all certified with integrated management systems, with the necessary certifications for Quality Management System (ISO 9001), Environment Management System (ISO 14001) and Occupational Health and Safety Management System (ISO 45001). Our four units at Renukoot complex, Mahan Aluminium, Hirakud Power & smelter and Birla Copper at Dahej are ISO 50001 certified. Currently, two more units – Aditya Aluminium and Utkal refinery – are in process of being accredited. The first stage of audit has already been completed at the respective sites.

With increase in digitisation and dependence on information technology systems, data security has become an important aspect of business. To ensure data security and protect data of our operations and consumers, we have implemented the Information Security Management System (ISO 27001) across all our operations. To meet our automotive customers' advanced quality requirements, primarily in downstream operations, we have implemented the International Standard for Automotive Quality Management (IATF 16949) at the respective locations. Similarly, to cater to the requirements of the Aerospace Segment, AS 9100 certification has been acquired for our Alupuram extrusion, first ever extrusion plant in India to get this coveted certification after Hindalco Almex Aerospace Ltd (HAAL). The unit has also been granted a BIS licence. The Alupuram extrusion has also got the approval of an expert agency for the manufacture of Marine Class Supplies. All our products are Restriction on Hazardous Substance (ROHS) compliant and we conduct periodical tests through NABL accredited labs to ensure we do not exceed the prescribed limit of restricted materials.

MAINTENANCE STRATEGY AND EXECUTION FRAMEWORK

Malfunctioning of equipment, including unplanned or unforeseen impairment of equipment function, can adversely affect the plant and our business. Our sustainable equipment management strategies help us tackle these issues in a planned way.

Usually, the reasons for equipment failure are inadequate maintenance strategies, non-conformance of standard operating and maintenance practices, use of substandard spares and so on. To ensure that there are no unplanned disruptions, we have developed a comprehensive asset management policy, termed the Maintenance Strategy and Execution Framework (MSEF).

The framework has multiple subprocess areas which directly or indirectly aid equipment maintenance function. All these subareas follow a collection of best practices either in the form of strategic initiatives, practices or results that are produced. This framework is based on Plan Do Check Act (PDCA) principles. Further, we revise and imbibe our framework based on internal and external best practices. Currently, the framework is referred to for any maintenance execution or as a goal to achieve excellence.

Asset Life Cycle Planning | MRO Management | Maintenance Budgeting and Control | Skill Management | Maintenance Documentation

Management of Change | HSE | Maintenance Technology Management | Maintenance Services (ext.)

Strategies

MAINTENANCE EXCELLENCE

Processes

Maintenance Planning & Scheduling | Maintenance Execution and Closure | Shutdown Management

Autonomous Maintenance | Tools/PPEs/ Spares Management | Asset Performance Management

Process Compliance | Vendor/Partner Management | Workshop Management

Results

Equipment KPIs | Process KPIs | Cost KPIs

Reliability Journey at Hindalco Downstream

Our downstream units have shown remarkable performance, especially in the second half of FY 2020-21. One of the key drivers of this performance was the adoption of the Reliability Model, which has been implemented by the downstream units over the last three years. We are following a unique '14-Element Global Reliability Model', which is similar to the one guiding Novelis operations and ensures the strengthening of our systems in every aspect.

Operator Care

Procurement | Root cause Analysis | Equipment and Process Design

Maintenance Prevention

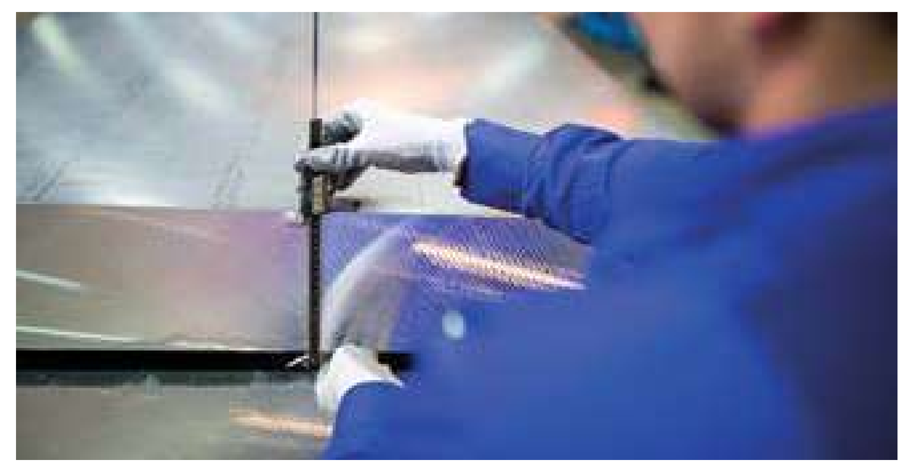
Reliability Processes

Preventive Maintenance | Predictive Maintenance | Work Management | Material Management | Lubrication

Goals and Targets | Reliability Plan | Organisational Culture | Reliability Network | Document control

Technical Training

14-ELEMENT GLOBAL RELIABILITY MODEL



We follow a three-pronged strategy that focusses on reliability foundation, reliability processes and maintenance prevention. During the last three years, our downstream plants have developed and uniformly deployed the novel concept of '5 Bucket Preventive Maintenance (PM) adherence' and 'Fixed Preventive Maintenance Time Window'. All the downstream units today are at 95%+ PM completion every month, which has resulted in sustainable gains across our operations. Our downstream units work cohesively and collaborate to resolve technical issues.

There are established forums like Monthly Reliability Calls and Quarterly Reliability Workshop, which are utilised to develop the right asset maintenance strategy and technological upgradation. In addition, there is a sharp focus on 11 Reliability KPIs, which every unit is required to monitor on a monthly basis to ensure continuous improvement. More than 300 best practices have been deployed across downstream units. Our annual audit ensures that the system is working effectively.

300+

Best practices implemented across downstream units

EXPLORING OPPORTUNITY, IDEAS AND CONCEPTS

At Hindalco, we focus on creating an impact on all our pillars - customers, cost and cash, while incorporating safety and sustainability. We encourage our employees to explore opportunities that serve people and the planet. One example is the indigenously designed and manufactured Aluminium bulker launched by Hindalco. With an increased payload of 2 tons over a steel bulker, the Aluminium bulker cuts logistics cost and carbon footprint.

The Opportunities, Ideas and Concepts (OICs) are evaluated by the OIC board. The shop floor teams follow 'Kaizen', which means change for the better through continuous improvement, whether big or small. Kaizen competitions have been held in the mining units in FY 2020-21 and other units are carrying out similar events to sustain the Kaizen culture at Hindalco. This is one way our employees are creating value for our customers. We also conduct cross-functional internal audit at our manufacturing sites to ensure that all the sites and mines are following the safety standards and guidelines.

Some process improvement projects that we have implemented across our operations are project engineering, Plan Do Check Act (PDCA), 7 Basic Quality tools (7QC), Kaizen events, Lean manufacturing, and Six Sigma. This has resulted in optimising resources, reducing energy consumption, producing quality products and enhancing safety.

₹2 CRORE

Savings from Central Quality Team's measures to improve packaging and procurement quality

Some of the process improvement projects in FY 2020-21:

Mahan

- Our team at Mahan took up an energy saving project to eliminate line loss by shifting the high-tension meter from Bargawan Substation to Bhikhajhariya Intake pump house
- The team also took up a project to reduce Promag-Ni consumption by developing a system for establishing correlation between input metal Na level from shuttle and pot analysis and Promag Ni efficiency (500kg/month)

Aditya

- Our team at Aditya reduced anode rejection from 0.2% to 0.15%

Renusagar

- We were able to achieve a reduction in unburnt fly ash from 1.10% to 0.84% and bottom ash from 1.42% to 1.29%; thereby improving boiler efficiency by 0.1% and correspondingly plant heat rate improvement by 3.0 kCal/kWh

Packaging and procurement quality improvement in downstream operation

- The Build Quality in Process (BQiP) framework helps us assess the strengths and opportunities for improvement at our downstream units. It has 24 criteria which include First Pass Yield (FPY), Management of Change (MOC), Layered process Audit (LPA) and others
- To reduce packaging and transit related issues, our central quality team took corrective and preventive action against complaints on a monthly basis. It was observed that proper enforcement could prevent material from getting wet. Some other practices to mitigate post-manufacturing issues and improve overall delivery performance were standardisation of lashing materials and methods, implementation of truck check sheet, strengthening layered process audit in packaging warehouse areas. As a result, the total number of complaints came down from 220 in FY 2019-20 to 155 in FY 2020-21
- Central quality team also provided technical support to strategic procurement in finalising quality suppliers, deciding the SOPs and standardising the specification for procurement of various packaging consumables in downstream units. The savings incurred on account of this initiative was over ₹ 2 Crore

World Class Manufacturing (WCM) and Integrated Management System (IMS)

We have designed a World Class Manufacturing (WCM) and Integrated Management System (IMS) portal which is now live. This is being used as a platform to share Kaizens, OICs, Continuous Improvement Projects, Process Capability, IMS documents, World Class Manufacturing (WCM) KPIs and calendar of WCM and IMS events. The portal provides a user-friendly platform seamlessly tying all the functions.

With the launch of this portal, the activities are now available in secured cloud environment and reduces the risk of data loss. The units have also digitised Kaizen, suggestion modules and internal customer satisfaction surveys for quick and easy access.

A view of the Mahan Smelter, The plant was conferred Mission Energy's 'Best Energy Efficient' Plant in coal preparation category (2021)

WORKING IN COLLABORATION

As a part of Hindalco's Operation Collaboration projects, our teams across different plants have taken up various projects to improve operational efficiency.

One significant project is Pot Turnaround Time. As pots play a significant role in the electrolysis process of our Aluminium smelters, reduced pot turnaround time could reduce the process completion time and increase production efficiency. One day of pot turnaround time reduction approximately leads to 700T per year of additional production, resulting in profits of ₹ 3.5 Crore per year. Our operation team has been able to achieve remarkable weighted average reduction across our plants at Aditya, Mahan, Renukoot and Hirakud. Our achievement in this field has led to cross learning across all the plants to improve areas of operation.

Operation improvement across plants

Aditya

Taking inspiration from Renukoot plant, Aditya plant is in the process of setting up a system for in-house treatment and disposal of Spent Potlining (SPL). It is also using rock digger and poclain for pot delining, and has a dedicated team to look after shifting and earthing trolley connection at Mahan to prevent unwanted delays.

Hirakud

The operation team at Hirakud is also exploring the possibility of setting up in house treatment and disposal of SPL. In addition, the plant is working on reducing idle time between shell delining and shell removal through better transportation system.

Mahan

Mahan started milling of anode beam surface, which has helped better anode contact. In addition, the operation team is making use of wooden slabs to help save pot tending assembly time through manual intervention.

Renukoot

Renukoot is working on reducing delays or idle time between two activities; exploring ways to tackle situations where crane is unavailable for activities. It also successfully tried using cold ramming paste in pot.

Improving energy efficiency

We continuously monitor our processes by benchmarking anode quality, productivity, efficiency and quality and compare our performance across industry best practices. Our plants at Aditya and Mahan are performing well in all the above aspects by staying within the standards of electrical resistivity, silica, vanadium, sodium etc. while simultaneously improving production, efficiency and quality. The plant at Aditya has the highest productivity in kg/pt/day among the 22 AP30 smelters, is sixth highest in current efficiency and ranks fourth in metal purity.

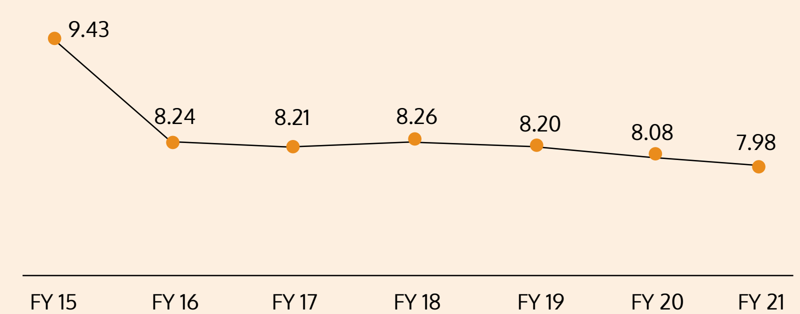
The captive power plant and Aluminium smelter at Aditya has shown a significant improvement, thus reducing energy consumption and GHG emission. It has significantly increased generation of solar power and utilisation of fly ash since FY 2018-19. It has also worked on improving water consumption reduction, pot productivity, CPP boiler efficiency and so on.

Our plant in Renukoot was able to perform successful simulation trials required for BrahMos missiles under the BrahMos development programme. We are collaborating with other Aluminium rolling companies and the next set of trials are under development. That the improvement of processes and products is essential to increase customer satisfaction, was also highlighted at the three-day training on advanced Total Quality Management conducted by a renowned faculty at Hindalco during the year.

Mega Collaboration Project to Reduce Auxiliary Power Consumption in CPPs across Hindalco

Auxiliary power consumption (APC) is an important parameter contributing to efficiency of captive power plants (CPPs). At Hindalco, we have CPPs operational at Aditya, Mahan, Hirakud and Renusagar locations. As part of the mega collaboration initiative across these four locations, the teams collaborated with the objective to find possible ways to reduce APC. The result was encouraging and led to a drastic reduction in APC from 9.43% in 2014-15 to 7.98% in 2020-21.

APC (%) for Aditya, Mahan, Hirakud and Renusagar (Cumulative)



The initiative had three stages with the first involving knowledge sharing across all the plants. Teams at respective plants shared the initiatives taken up with other plants, resulting in a horizontal deployment of ideas and projects. The second stage involved technology innovation and energy audits across the plants. The final stage resulted in achievement of operational excellence. During last three years of implementation, the plants have cumulatively shared and implemented 166 projects in their own plants.

Some of the projects taken up for APC reduction involved installation of variable frequency drives (VFDs), replacement of inefficient equipment such as compressors, motors. Replacement of oversized equipment with smaller-sized equipment has increased efficiency of pumps and motors. De-staging of condenser extraction pump and boiler feed pumps has helped as well. Data monitoring and analysis of energy consumption of equipment have optimised processes.

Even a 0.1% saving in APC, according to our estimates, results in close to ₹ 10 Crore per year across the four CPPs. The project has thus led to significant improvement in operational efficiency and cost savings. Our APC plan also aims to reduce consumption at Aditya, Mahan, Renusagar and Hirakud plants to enable an approximate cost saving of ₹ 30 Crore.

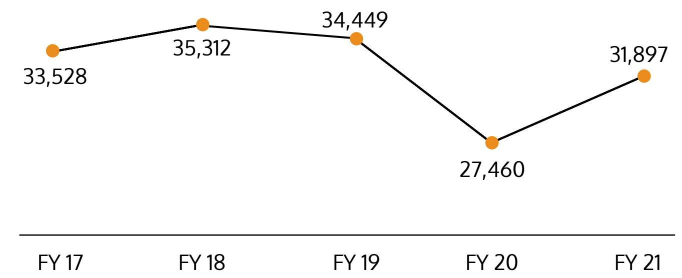
WORLD CLASS MANUFACTURING

At Hindalco, the concept of 'World Class Manufacturing' (WCM) improves our processes to build organisational capability and culture through a transformation in team-level engagements, improvement in our stakeholder relationships and ability to resolve and improve our basic conditions.

Hindalco through its subsidiary Hindalco-Almex Aerospace Limited (HAAL), is a proud supplier of aerospace and defence grade Aluminium alloys for India's prestigious missions like Chandrayaan, Gaganyaan and various PSLV and GSLV launches. This is testament to Hindalco's capability in providing high end technological solutions for our customers.

We were able to achieve a saving of ₹ 168.74 Crore in FY 2020-21 through the implementation of 2,658 Continuous Improvement projects. In addition to that, there was increased participation from our employees across locations who submitted a total of 31,897 Kaizens.

Number of Kaizens



A Bottom-up Approach at Mahan to Drive Innovation

Aerospace grade Aluminium manufactured from primary metal supplied by Mahan Aluminium went into outfiting Chandrayaan II.

Our Mahan operations set an example by achieving operational excellence milestone during the year. This was the result of active engagement by senior leadership at the plant and respective operational teams. Some of the initiatives which have facilitated changes at various levels and created a buzz of continuous improvement culture are:

- Pillar (committee) specific review by Unit Head and Plant Head
- Regular model area visits by leadership team
- Unit Head's WCM focussed interaction on shop floor
- Surprise calls to small group members

In addition to this, activities like Quarterly Waste Walk drive, Workmen Technical Trainings at Gemba, monthly theme celebrations such as Quality Month, Maintenance Month, Innovation Month, digitisation of Kaizen/suggestion submission have also impacted the employees, who are now actively and more enthusiastically participating to achieve standards of WCM.

The activities at Mahan have resulted in long-term savings, productivity enhancement, cross functional learnings and involvement of the last man in the journey of excellence. Mahan has been able to achieve a total of 4,291 Kaizens, 97 completed CI Projects and 60 OIC projects in 2020-21 with the help of these activities. Mahan has rewarded around 450 employees and workmen for WCM activities in the fiscal.

Hirakud FRP- Cold rolling mill operations

Alumina Navigation

Alumina is one of the most important raw materials in our operations. We transport alumina between refineries and smelters, depending upon the demand and supply at locations. Surplus alumina is also sold to other industries.

Location of our refineries and smelters, the dynamic demand supply scenario and different process requirements add complexity in balancing alumina supply across these locations. However, we are proud to say that there has not been any production cut due to shortage of alumina in any of our smelters. This is the result of our reliable alumina navigation approach, which transported alumina through rail. The number of rakes has grown from six rakes in 2015 to a fleet of 12 rakes in 2021, with one more being introduced this year. We have been able to navigate more than 1.5 million tons of alumina with the fleet strength despite facing the challenging traffic conditions of Indian railways. We have exported a total quantity of 335,702 MT along with a total domestic sale of 157,099 MT since 2015.

12 RAKE

Owned by the Company help maintain alumina supply across plants and to other industries

₹8,000 CRORE

Proposed investment in Hirakud, Silvassa and Mundra plants

Our Future Expansion Plans

We are planning to expand our Aluminium downstream business with a focus on VAP over the next 3-7 years. Our products would cater to customised requirement for varied and complex applications of Aluminium. We plan to invest around ₹ 8,000-10,000 Crore in expanding flat rolling capacity at Hirakud, new extrusion plant at Silvassa and in a greenfield site at Mundra with a recycling facility. The Hirakud plant capacity for flat rolled products is estimated to be 340 KTPA. The planned capacity of the extrusion plant at Silvassa is 34 KTPA, which would have three extrusion presses to service premium customers in building and construction, automobile and transport, electrical, consumer and industrial good sectors. In addition, the new extrusion and recycling unit at Mundra is awaiting land acquisition process and would have a capacity of 93 KTPA.

COVID-19 Response

During these challenging times, we ensured that we faced all hindrances with a daunting spirit. Our Copper plant in Dahej was operational by June 2020, despite minimal staff causing problems of loading/unloading ships. Migration of labour also caused disruption, but we could overcome the problem with the Birla Copper leadership team's plan of 'Creating a pool of resources between various facilities' and 'Re-distributing shift loads'. Our Aluminium business was fully operational within a few months, with the normalisation of operations in Aditya, Mahan, Renukoot and Hirakud. Initially, our downstream plant operation at Renukoor-FRP and Hirakud FRP could only run at 30-40% and 50-60% of the respective capacities but became fully operational within a few months. Most importantly, our Utkal refinery continued to operate at full scale except for a brief period.

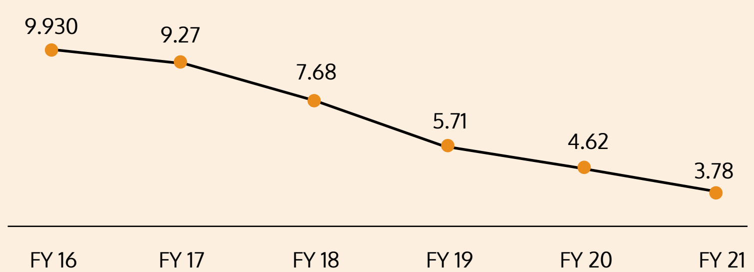
Our operations and maintenance teams have become more self-reliant and technically sound. We were able to find ways to optimise maintenance activities and curtail redundant time-based replacement. We have standardised our maintenance approach for upstream and downstream plants and improved equipment reliability and availability across the board. We were also able take various cost saving approaches for maintenance of our plants. The new ways of working that we evolved during the time, are keeping plants operational with reduced staff and improving the digital abilities of our marketing teams so that they could connect and deal with customers online.

Innovation Wins the Day

Our culture of innovation and technological excellence have optimised processes and improved specific consumption of raw materials and energy. This was evident again at our four alumina refineries Renukoot, Utkal, Muri and Belagavi, which produce hydrate, smelter and chemical grade alumina. Caustic loss, through liquor with red mud residue in the Bayer process, was having a huge impact on the cost of production of alumina.

To control the loss, plate and frame filters for filtering red mud slurry were installed across all the refineries. The improved processes have enabled us to bring down the loss from 9.9 kg/MT to 3.8 kg/MT. The use of plate and filters has also helped reduce the moisture content of red mud by 22-23%, making it easier to handle and utilise the residue for cement plants.

Caustic Loss Reduction Kg/MT of hydrates



Belagavi Filter Press

Can Crush: A Big Step Towards Sustainable Packaging

With a recycling capacity of 2.5 MMT, Novelis operations have taken a significant stride towards circular economy. During 2020-21, Novelis has achieved an average of 61% of recycled Aluminium inputs.

Many of the automobile companies are procuring recycled Aluminium from Novelis to make new products. Novelis is also helping an automobile company to recycle and reuse 90% of the Aluminium scrap it is producing. This is an outcome of closed loop recycling method developed in collaboration with the automobile manufacturer. Novelis has also received several awards for its innovation in electric vehicle battery enclosure, demonstrating its commitment to excellence and innovation.

The Hindalco subsidiary is also working on meeting customer requirement for sustainable packaging around the world. Currently, Novelis is the leading global buyer as well as the recycler of used beverage cans, recycling more than 74 Billion cans this year. Towards this, the Novelis team in Asia has initiated a Can Crush Campaign to raise awareness on the benefits of can recycling.

74 BILLION

Cans recycled by Novelis in 2020-21

HUMAN CAPITAL

Taking Care of our People

Our people form an integral part of our journey towards transformational, responsible and sustainable change. Our people policies are designed to provide an excellent work environment which is safe, conducive, harmonious and support all round development of our employees. Our transition towards a Greener, Stronger and Smarter future is augmented by our efficient and safe operations. This is the result of the convergence of the efforts of a 50,000+ strong workforce, including our contract workmen. Our efforts to nurture our Human Capital are in alignment with our ESG commitment.

Contribution to SDGs

Interlinkages with Material Topics and other Capitals

Material Topics	Capitals Connected
Employee Well-Being	Financial Capital
Diversity and Inclusion	Intellectual Capital
Occupational Health and Safety	Social and Relationship Capital

Alignment with Strategic Priorities
SP-2: Strong ESG Commitment

Human Capital is at the heart of our journey towards a greener, stronger and smarter future augmented through efficient and safe operations. This is the result of convergence in efforts of a strong workforce of more than 70,000 people across the globe, including the contractual workforce. Our efforts to nurture human capital are in alignment with our strategic priority of strong ESG commitment.

We are committed to instilling a culture of excellence, integrity and transparency among our employees. Our people policies, processes and practices are designed to provide an excellent work environment which is safe, harmonious, responsive and supports the overall development of our employees. We ensure that there is no discrimination at the workplace, against any employee, on grounds of religion, race, colour, gender, age, political opinion, nationality, social origin, or disability. We are committed to foster career development by building a unique culture of collaborative working.

We have specific platforms and processes in place to listen to and understand concerns of our employees and address them appropriately. Our targeted employee engagement activities encompass relevant approaches and practices that help to keep the workforce continually

HIGHLIGHTS

7%
Women in total workforce

₹8.5 CRORE
Spent on Training and development for permanent employees of Hindalco and Novelis

85%
VIBES Employee Survey Score (Employee engagement Index); 96% employees participated

431
New hires

117 E-LEARNING
events and 650+ hours Technical training

2.2 MILLION
Man hours of training

4.9%
Employee Turnover Rate

Focus Areas

- Employee Well-Being and Human Rights
- Diversity and Inclusion
- Training and Development
- Occupational Health and Safety

motivated and performing at their best. Our HR Management Framework aligns with our overall business strategy and goals. It is built on pillars like organisation design and productivity, capability building, talent and careers and is driven through our focus on Culture, Communication and Engagement. Our Values, Code of Conduct, Human Rights policies and practices empower employees to raise their voice in case of any discrimination, without any fear of retaliation.

We have adopted and are working on reinforcing a culture that nurtures innovation, creativity and diversity of our employees. Our motive is to develop a spirit of excellence and provide interventions for overall professional growth of our employees. Employee Development acts as a catalyst for continuous improvement, increased engagement and breakthrough performance. We aim to continue our interventions to improve our people practices.

EMPLOYEE WELL-BEING AND HUMAN RIGHTS

Our employees are our greatest assets and their well-being is of prime importance to us. We have several policies and programs in place that focus on health, safety, general well-being, medical facilities, prevention of any form of harassment at the workplace and maintaining human dignity. Our policies and procedures are regularly reviewed by our management at both the plant and corporate levels.

To bring out the best in our people, we offer an array of benefits to our direct employees that include medical insurance, residential accommodation at plants, group personal accident insurance as well as parental leaves. During the reporting period, we have provisioned ₹ 1,177 Cr. for defined benefit obligations. As per our organisational policy, all our management and staff employees are entitled for parental leaves. All employees who availed parental leave during the previous reporting period are currently employed with us after 12 months of return to work.

At Hindalco, we respect human rights and are committed to ensuring that they are protected and governed by our human rights policy. We support the freedom of association and collective bargain of our workers. Currently, more than 95% of the permanent blue-collar workforce and more than 67.3% of our workers are represented by various trade unions and are covered by collective bargaining agreements, whereas, the percentage of employees covered by an independent trade union or collective bargaining agreements for both our Indian operations and Novelis operations is around 64.44%.

Parameters	Male	Female	Total
Total employees who took parental leave during 2020-21	210	4	214
Total number of employees who returned to work in the reporting period after parental leave ended	210	4	214
Total number of employees who returned to work after parental leave ended and are still employed 12 months after their return to work in 2020-21	305	6	311

We have implemented a state-of-the-art Contract Labour Management System and the registration process ensures that the entire contractual workforce is above 18 years of age. Apart from that, our standard operating procedures ensure compliance with the labour laws and rights. We also have a grievance redressal process at all our locations for our employees.

Further, our risk management framework captures the risks related to human rights at respective plant locations. We have implemented the Online Compliance Tool (Rojnama) across our units. The Unit HR teams ensure that necessary compliance details are incorporated in this tool every month. An external agency audits the data and follow-ups with periodic legal compliance audits that encompass human rights and applicable labour laws. We also have a process implemented which ensures risk mitigation related to human rights. It involves maintaining a risk register pertaining to working environment, human rights, legal and occupational issues along with health and safety across all the units, to periodically review and mitigate the risks. The risk mitigation plan takes into account risks pertaining to employees and local communities. All our units and mines follow this mitigation plan. The key risk that we have identified with respect to human rights is disruption to our operations if the demands of the project affected people and local communities are not fulfilled.

The ratio of basic salary and remuneration for women to men during the reporting period was 0.70:1 for management level employees and 0.90:1 for non-management level employees. Further, to safeguard the interest of our employees, we provide a minimum notice period of 60-90 days in case of any significant operational change.

At Hindalco, we believe awareness of human rights is necessary and towards that we took an initiative of conducting training programmes for our employees as well as our security personnel. All our security personnel are covered under the human rights training programs. This programme on business and human rights was attended by security personnel from our plants located in Aditya, Dahej, Gare Palma coal Mines, Hirakud FRP, Hirakud P and S, Mahan, Renukoot, Renusagar and Utkal. In addition to that, we also conducted one human rights programme at Mahan for our employees wherein 23 participants were trained. Our human rights training includes imparting training related to discrimination and harassment at workplace. The total training of man hours provided to security personnel and our employees is given below:

Total training man hours provided to security personnel and our employees on Human Rights

Category	Total
Total training man-hours provided to security personnel for human rights training	63
Total training man-hours with respect to human rights for employees	86.25

Community Initiatives during COVID-19

With the onset of the pandemic, there were many sections of the community including workers who were affected. With this in mind we launched various initiatives to provide basic necessities to our workforce and local communities including incentives to our contract labour.

The focus of this initiative was to proactively engage with workers and local communities to ensure safety and wellbeing during COVID-19. We made sure that contract labour are paid on time and rewarded for working during this period. As a result, there was no job loss of contract labour on account of COVID-19. We delivered awareness programmes on the benefits of Government of India's scheme of Pradhan Mantri Garib Kalyan Yojana (PMGKY). The contract labour were rewarded with ₹ 8,000 per head per month for 3 months in addition to their monthly wages. Our committed workers were diligently involved in helping the organisation achieve its production targets for the year.

For our communities, we took several initiatives such as setting up of 51 isolation centres, 930 awareness camps in 322 villages, distribution of 3.8 lakhs of masks and 244 litres of handwash.

Along with that we conducted 1984 nos. of health checkups and carried out regular sanitisation in many villages. This was one of the ways of engaging and protecting our contract labour and communities during COVID-19.

DIVERSITY AND INCLUSION

In today's competitive business environment, obtaining diverse perspectives is greatly valued in order to address various challenges that are key to our organisation's success. A diverse workforce in terms of gender, age, regions and backgrounds adds creativity and innovation in our operations

Share of our women employees under various categories has been presented in the table. Further, our target is to increase our female share in all categories by 1% every year.

Diversity Indicator	Percentage at Hindalco	Percentage at Novelis
Share of women in total workforce (as % of total workforce)	7.00	13.50
Share of women in all management positions, including junior, middle and top management (as % of total management positions)	7.27	21.95
Share of women in junior management positions, i.e. first level of management (as % of total junior management positions)	7.41	22.80
Share of women in top management positions, i.e. maximum two levels away from the CEO or comparable positions (as % of total top management positions)	2.4	15.63
Share of women in management positions in revenue-generating functions (e.g. sales) as % of all such managers (i.e. excluding support functions such as HR, IT, Legal, etc.)	4.56	20.63
Share of women in STEM-related positions (as % of total STEM positions)	3.75	16.43

Our latest interventions have focussed on bringing in more women to progress the diversity of the workforce along with building an inclusive culture that enables the diverse workforce to do their best at work. Being a part of the workforce, women employees are bringing significant positive changes to the business with their perspective and attention to detailing among other things. Therefore, gender diversity is one of our prime focus areas.

We increased the number of female hires from 17.24% in FY 2019-20 to 20.81% in FY 2020-21 for our India operations. Conscious and planned efforts are being made towards providing our employees with a bias-free work environment. Our Prevention of Sexual Harassment (POSH) policy ensures unbending actions are taken on any employee found guilty of sexual harassment of another fellow employee and all our employees have completed the course on POSH.

An Internal Complaint (IC) Committee has been formed across all our units and office locations, ensuring compliance with the Prevention of Sexual Harassment of Women at Workplace (POSH) Act, 2013. All circulars released by the IC are communicated to everyone and cases are reported through the IC, portals and helplines. This year we reported and resolved two cases of sexual harassment. Additionally, an e-learning course provides relevant insights with respect to the POSH Act to all our employees.

The course is available on the 'Gyanodaya' portal and a course completion certificate is provided at the end of the session. Also, as per our organisational policy, we strictly do not differentiate between employees on the basis of their gender, colour, caste, creed, nationality, religion, race and disability. Our Hindalco People Framework showcases our interventions towards gender sensitisation through gender intelligence programs to create a safe environment for women. Our maternity leave policy further translates our intent to support employee well-being and health of women.

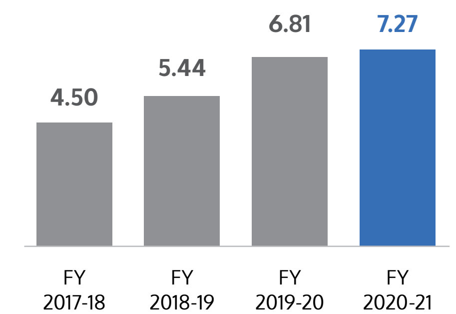
20.18%

Women hires in 2020-21 in our India operations

7%

Share of women in total workforce for our India operations

Women in Management Positions (%) (India operations)



Women at Hindalco

The changing workforce demographics with more women on our factories helps us to build inclusion through strategic learning and partnerships. In order to increase the footprint of women in the workforce, we co-created a brand name for our Gender Diversity initiatives which everyone in the organisation could relate to and "WAH or Women at Hindalco" is a well known brand within ABG and Hindalco today. WAH connotes admiration, wonder and enthusiasm. This helps us align all our initiatives and celebrate the spirit of women in Hindalco under one umbrella brand.

The WAH brand has gained momentum with time and has been lauded more broadly over social media by virtue of various interventions and our communication strategy. Few of our achievements include - Gender Intelligence programme for more than 1100+ employees, hiring of women GETs has gone up from 18% in 2018 to 40% in 2020, percentage of women managers has gone up from 3.8% in 2017 to 6.4% in 2020, overall representation of women in middle and senior roles has multiplied and we have rolled out our dual career support guidelines.

Interventions like "Soaring High" which is an eight-month long career and capability building programme integrated with mentorship programme has increased the overall representation of women in middle and senior roles. Further, our upcoming interventions like Hindalco Women Conclave part-II, launch of diversity and inclusion e-learning (Hindi and English) continue to reinforce the positive changes made by women at the workplace. Our gender diversity has been increasing by 1% every year on account of our gender focused initiatives through a co-created and well-planned roadmap.

ORGANISATION EFFECTIVENESS

In order to enrich our human capital, we have launched and implemented many organisation effectiveness (OE) interventions. Initiatives like Values month celebration every February, and Values Cafe have helped employees inculcate our values in their everyday lives.

To reshape our culture, change agents play a crucial role in developing the organisation's capacity and capabilities in keeping with the times. For example, we are running a longitudinal transformation programme titled "Parivartan #RKT2.0" at Renukoot which aims to ensure a sustainable future for the unit.

This is a comprehensive intervention involving daily management, continuous improvement, capability and culture building and value creation. Everybody from contract workmen to the Unit Head are involved in this intervention and innovative programmes like Large Scale Interactive Process have been used to involve hundreds of employees in 3 day workshops at one go. Increased collaboration, employee involvement, rapid problem solving, continuous improvement are some of the benefits that we have already started seeing as a result of this transformation programme. We adhere to the laws and regulations pertaining to employment of local people prescribed by local law, regulations or respective local governments.

Additionally, we undertake the employee engagement survey 'Vibes' with the help of a third party agency. This survey is based on the ABG survey model, and through this survey we aim to seek inputs from our employees on various parameters such as agility and alignment, employer brand, performance culture, and manager effectiveness. The survey is conducted periodically across all our business units. 96% of our employees participated in this survey conducted. Survey shows close engagement index is 85% which is the highest score. The outcomes of the survey concluded that most items were above the GHP norms except pay and training. It helped to gain an understanding that the business can attract the best and the people of all backgrounds can succeed. The survey also resulted in improved resourcing. The performance of the manager also remained strong.

85%

Close engagement index

Employee Strength: India Operations

The breakdown of employees for our India operations is given below. Among our employees from India, we have one expat from United States of America.

FY 2020-21

Parameter	Aluminium and mines	Copper	Total
Total Manpower Strength (Management Staff and Workmen)	21784	1,595	23,379
Number of Management & Staff	7,362	518	7,880
Number of Management & Staff (Male)	6,843	482	7,325
Number of Management & Staff (Female)	519	36	555
Number of on-roll workmen	14,422	1,077	15,499
Number of on-roll workmen (Male)	14,331	1,072	15,403
Number of on-roll workmen (Female)	91	5	96
Number of contract workmen	23,274	6,053	29,327
Number of contract workmen (Male)	22,071	5,930	28,001
Number of contract workmen (Female)	1,203	123	1,326

Management Employees (Age wise)

Year	>50 years	30-50 years	<30 years
FY 2017-18	1,140	2,380	508
FY 2018-19	1,188	2,395	473
FY 2019-20	1,232	2,436	598
FY 2020-21	1,137	2,582	601

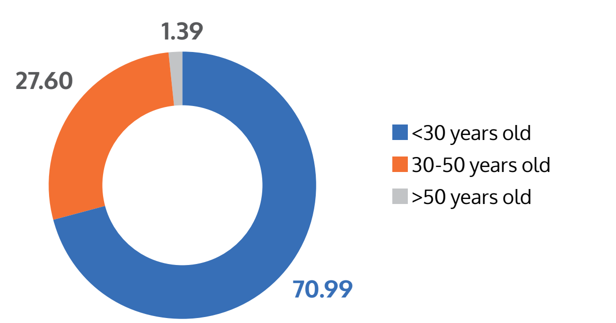
Staff Employees (Age wise)

Year	>50 years	30-50 years	<30 years
FY 2017-18	573	2,086	949
FY 2018-19	606	2,053	945
FY 2019-20	648	2,019	913
FY 2020-21	568	2,068	914

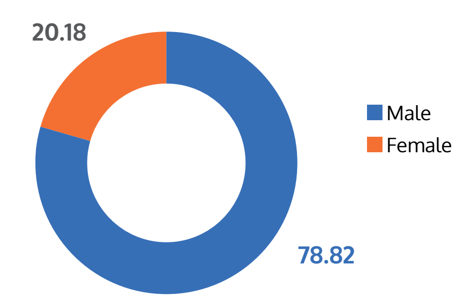
We have a total of 12,585 employees working at our Novelis operations with 10,885 male and 1,700 female employees. 6855 of these employees are in the 30-50 years age group. Further, the number of employees in the age group of less than 30 years is 1,761 and more than 50 years of age is 3,969. Our Novelis operations hired 587 employees out of which 85 were internal candidates in the reporting year. our India operations hired 302 of 431 hires internally, breakdown of hiring with respect to age and gender has been provided below.

Age and Gender: India Operations

New Employees Hired by Age (%)



New Employees Hired by Gender (%)



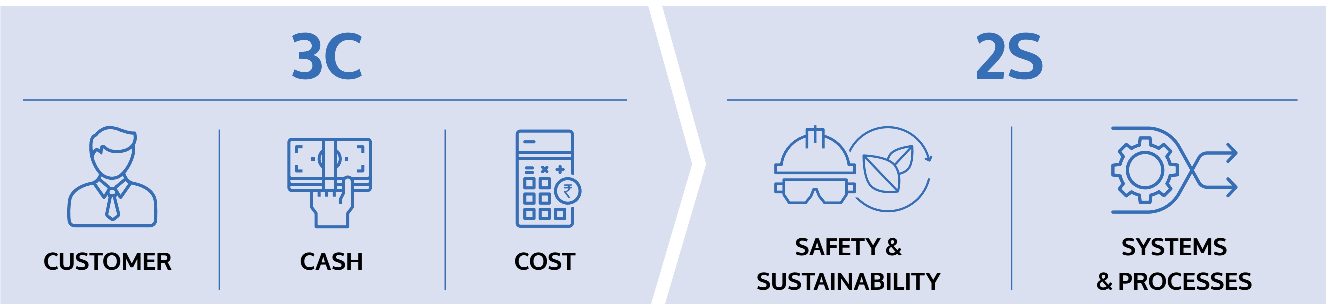
Employee Turnover Rate

The voluntary employee turnover for our India operation in the reporting year was 2.82% with details of the total employee turnover in the table below:

Employee Turnover FY 2020-21: India Operations

Total employee turnover	Aluminium and mines	Copper	Total	Rate
Total employee turnover	352	35	387	4.9%
Employee turnover – Male	320	32	352	4.8%
Employee turnover – Female	32	3	35	6.3%
Employee turnover (> 50 years old)	179	10	189	9.9%
Employee turnover (30-50 years old)	90	12	102	2.3%
Employee turnover (< 30 years old)	83	13	96	6.4%

We reported total employee turnover rate of 8.29% with voluntary employee turnover of 2.47% for our Novelis operations.



Review Framework

Our Review Framework ensures the organisational objectives and individual goals are aligned. This helps us focus on critical aspects for the overall business. The 3C + 2S framework plays a vital role in driving employee alignment and productivity across large areas of our business, such as operations, cost management, efficiencies, safety, sustainability, systems and processes.

Performance Evaluation

We have been consistently growing and want our employees to excel in their career and perform with the best of their abilities in order to be recognised for their excellence. All our employees are covered under the yearly performance review. The goal-setting process for each financial year enables the employees to align their individual goals with organisational goals. Employees' performance is reviewed and they set annual goals with their manager and their team members and also come up with a plan to achieve those goals within set timelines. This process helps employees take charge of their own performance excellence, team performance facilitation and career development.

A talent month branded as "Celebrating and Developing Fit for Future Talent" was organised for employees who are committed to the organisational goals. The individual capabilities of the employee are aligned to the role requirements based on merit. Senior leaders invest their time in forums like Talent Councils and individual discussions in order to support and provide guidance to meet the employee career aspirations. In addition to other initiatives taken on Performance Evaluation, we have modified our systems to encourage a transparent and empowering approach to granting annual salary increases based on performance and other relevant factors. We have launched PerformFIT, an online tool for rating normalisation, recommending promotions, salary corrections, in an open manner based on relevant data. We have normalisation committees at 3 levels – Unit, Cluster and Business wide. We have also introduced a real time feedback tool called PingME to capture feedback from multiple stakeholders. This tool enables a 360-degree continuous feedback throughout the year with a usage of 80% in the reporting year. Managers are able to see all feedback that an employee receives on this tool at the time of completing the annual appraisal process. We are planning to further build on performance and reward differentiation online, so that managers can take empowered decisions granting salary increases within the budget given to managers, basis data.

Employee Engagement

We try to understand the needs and issues of our employees and then address the same through targeted employee engagement initiatives that drive satisfaction, engagement and the motivation to excel. We listen to and obtain formal feedback from our employees through periodic organisation climate and manager effectiveness surveys. Below are a few examples of initiatives targeted at enhancing employee experience, team bonding and to unleash individual and collective energies at the workplace.

Desh Mera Rangeela Competition

We organised a fun activity with all HR team members and their families at the Renukoot Cluster on the occasion of Independence Day under the leadership of the Cluster HR Head, Satish Anand along with Desh Mera Rangeela Selfie competition. Participants enjoyed themselves and had an opportunity to express their creative selves.

AWOO Campaign 2020

The annual AWOO Give Back campaign encourages employees to contribute and support young scholars in achieving their academic dreams. During the last year, employees actively participated and supported the local 'Hope for Scholars' initiative at Renukoot with enthusiasm and ownership, and many came forward to contribute towards a better future for these scholars. This helped the unit to contribute the highest amongst all units of Hindalco to the AWOO Give Back campaign.

80%

Usage of PingME, our real-time feedback tool for employees

Jai Veeru Campaign at Renukoot

Mental well being of an employee is extremely important to deliver quality work and with this thought, we came up with the initiative of fostering friendship amongst colleagues at Renukoot. This intitiative was launched with the objective of encouraging expression of joys and concerns at our workplace and to promote teamwork and enhance team performance. Emotions play a vital role in our mental health and this initiative focused on building friendship and empowering our employees to be open with colleagues.

We announced a best friend @ work campaign (Jai and Veeru contest) at Renukoot unit wherein various stories, video clips, of friendships were shared by the employees. This campaign helped in bringing a sense of camaraderie among employees.

TRAINING AND DEVELOPMENT AT HINDALCO

At Hindalco, we believe that employees being knowledgeable, skilled and competent at their work is a driving force for our business. Thus, an important priority for us is to keep enhancing and developing our employees.

Our approach is to work on the holistic development of all our employees and develop their technical skills, functional capabilities and behavioural competencies in keeping with new developments, technologies. Our initiatives and programs provide opportunities to all employees through an appropriate mix of on-the-job training and exposure, projects, mentoring and classroom trainings to develop themselves and improve their career prospects.

Key Employee Development Programmes

We provide various kinds of training to our employees, which assist in enhancing their behavioural and technical skills. Managerial employees in our organisation get the opportunity to undergo exciting and enriching leadership development programmes at every career stage which helps in facilitating the process of learning and building the right capabilities at the right time . With the kind of situation, we are facing right now, some of our virtual development programmes are focusing on equipping Managers to maintain our work culture and lead people and teams effectively but empathetically in a virtual and semi-virtual environment.

In FY 2020-21, we were successfully able to conduct 11 batches of the leadership programme, XSEED (Excellence in Skill Enhancement and Employee Development) and three out of five batches of Future Leaders in You (FLY),

virtually for our junior and middle Managers. We follow a segmented learning approach with different programmes for our Junior, Middle and Senior management employees. Apart from conducting these leadership programmes, our internal faculties were able to hold sessions on functional capability building in areas of HR, Finance, Procurement. In addition to this, 200 managers from our organisation have been nominated to attend behavioural programmes such as Unleash your Best offered by Gyanodaya which is the Aditya Birla Group's Corporate Training Centre.

We value our top talent and encourage them to undergo various leadership programmes and experiences. Five of our women managers are currently participating in the Gyanodaya Accelerated Leadership Programmes-Springboard. We also have the 'Step Up' programme for leaders in manufacturing sector wherein 11 managers are attending. For our Unit HR heads across the plants, we have launched a customised mentoring programme to further hone their skills.

We have a transition programme by Gyanodaya wherein individual employees and their spouses jointly participate to prepare for their life post-retirement. This programme focusses on preparing a transition plan with the help of questionnaires, spousal feedback, experience sharing and interaction with peers and experts. In addition, we provide awareness programmes for them on topics related to health, wealth, legislation and networking.

Our Approach to Building Programmes

Our HR teams design and deliver capability building programs for Leadership, Behavioural, Functional and Technical learning.

- First, we undertake Training Needs Identification (TNI) at every unit with individuals, departments and the Unit Leadership team to identify areas for development of individuals as per career level and job role along with functional and technical training needs for different departments, areas and levels
- With the application of the 70:20:10 principle, the maximum weightage is given to on-the-job training (70%) then followed by learning from others (20%) and finally classroom activities (10%)
- The data is fed into My Development Plan (MDP) for the goal-setting process of every employee which can be updated at any point of time during the year
- A planner is accordingly prepared which addresses individual and organisational requirements based on the learning needs once the MDP reports are analysed by the Unit HR and the learning and development team

The corporate teams lead the behavioural and the functional flagship leadership development programmes for our junior, middle and senior management development. All the programme enrolment and feedback are carried out online and the participant data is tracked through our Cornerstone On Demand (CSOD) platform.

Methodologies to Check Effectiveness

While providing our employees with the training and skill development programmes, it becomes necessary to measure the impact of trainings. These training programmes help the employees apply the skills and knowledge gained in their respective areas of work. This can lead to benefits such as reduced downtime, reduction in cost of production and enhanced quality of product resulting in cost savings.

At Hindalco, we have implemented the Kirkpatrick model of evaluation to check the effectiveness of trainings that we provide.

Measuring the Effectiveness of Training

Level	Process of Evaluation
L1 Evaluation: Feedback on content and trainer by the participants after the session	We take feedbacks after every unit level and corporate behavioural and technical trainings
L2 Evaluation: Post-training assessment (Applicable only for certification programmes of Hindalco Technical University)	Any participant who has attended a specific certification programme is eligible for post-training assessment. Those who score 80% or more in the assessment qualify and are awarded with a Course Completion Certificate while the others receive participation certificate only
L3 Evaluation: Change in behaviour of participants after 60 days	We take feedback from participants after 45 days and from managers after 60 days of training to check for any change in behaviour, mindset and skills. In addition, the business impact study of long-term leadership development programmes is carried out based on 360-degree pre- and post-assessment, strength locator, project charter. Further, an action learning plan is taken up by every participant
L4 Evaluation: To meet the training objective and ROI **L4-A:** Meeting the training objective **L4-B:** Calculating ROI	L4-A: We have selective programmes where training objectives are defined and are captured within 90 days, such as GET Six Sigma Programme, PMP Certification Programme and trainings for National Certification Examination for Energy Managers and Energy Auditors L4-B: HTU is measuring Return on Investment (ROI) in six months only for GET Six Sigma Green Belt Programmes

Other Training at Hindalco

Training on Sustainability

At Hindalco, sustainability is a core to achieving operational excellence through continuous improvement. Hindalco Technical University (HTU), in association with our Manufacturing Centre of Excellence (MCOE), has developed some capability-building initiatives for our employees to develop their skills in the area of sustainability that will enable them to transform our communities. Specifically, we have developed a customised programme for our plants and mines which consists of 4 modules of 3 days each on "Sustainability - A way of life for present and future". To raise awareness, we have also initiated awareness trainings on sustainable water management in collaboration with an external organisation. In addition, we conduct trainings and programmes related to biodiversity management, air quality management by industry experts, waste management, plastic management and e-learning programmes on different aspects of sustainability for different employees to get insights and learnings on different aspects of sustainability. The total training hours with respect to sustainability trainings has been highlighted below:

2,301.5

Training hours of Sustainability Awareness in Employees

Total Training Hours Devoted to Raising Sustainability Awareness in Employees

Aluminium and Mines		Copper		Total		
Classroom	e-Modules	Classroom	e-Modules	Classroom	e-Modules	Total
2183	24.5	93.5	0.5	2,276.5	25	2,301.5

Trainings on Risk Management

It is important for us to identify, assess and then find solutions to mitigate risks, threats or any unfortunate event in our operations that can affect our organisation in any way. We have three different trainings that we provide related to enterprise risk management to our employees. First, during the induction by central Enterprise Risk Management (ERM) team to our unit risk committee involving department heads, senior management etc. The second kind of training is conducted once every year for all our employees and the third one, is a module which is conducted during onboarding of new employees.

Risk Management Training Duration

Category	Aluminium and Mines	Copper	Total
Total training hours with respect to Risk Management trainings to employees	13,200 Man Hours	900 Man Hours	14,100 Man Hours

Total training of 168,443 hours was conducted at Novelis operations for our employees in the reporting year. The female employees received 12.3 hours of average training man hours whereas the male employees received 12.1 hours of average training man hours per employee.

Average Training Manhours per Employee for India Operations

Category	Aluminium and Mines			Copper			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Total Training man-days	92,902	1,947	94,848	4,467	98	4,565	97,368	2045	99,413
Training man-days (Management & Staff)	21,980	1,886	23,867	1,191	83	1,274	23,171	1,970	25,141
Training man-days (On-roll workmen)	70,921.4	60.4	70,981.8	3,276	15	3,291	74,197	75	74,273
Average Training hours per employee	39	26	38	24	25	24	38	25	37

Digital Learning at Hindalco

We introduced e-learning programmes at Hindalco during the COVID-19 pandemic to upgrade the skills of our employees. Many campaigns were floated to promote learning through application-based programmes, such as through the use of the Gyanodaya Virtual Campus (GVC) app.

The 14-day Quarantine Learning Challenge and e-Learning Premier League campaigns were very effective to popularise these learning platforms and enthuse participants to strengthen the learning culture through such digital platforms. The total number of employees that downloaded the GVC application were 1802.

E-learning Manhours

Category	Aluminium and Mines	Copper	Total
Total e-learning hours for management and staff employees	29,925	2,372	32,297

Hindalco Technical University

The purpose of establishing Hindalco Technical University (HTU) in November 2017 was to enhance the technical expertise and skills of our employees in line with our Purpose of "Manufacturing materials that make the world Greener, Stronger and Smarter". We are committed to fostering technical excellence in our workforce with the objective of achieving higher productivity and to be prepared to tackle all sorts of technical challenges.

Our segmented and customised technical training programmes are accessible to relevant employees and are designed by going through various role, technology and industry specific requirements which are finalised after consultation with our stakeholders, study of global companies and inputs from our heads of departments.

Our future plans involve development of more training programmes, e-modules, video nuggets, certification programmes etc for our workforce along with courses on Aluminium and Copper Manufacturing and Engineering specially for the people associated with this industry.

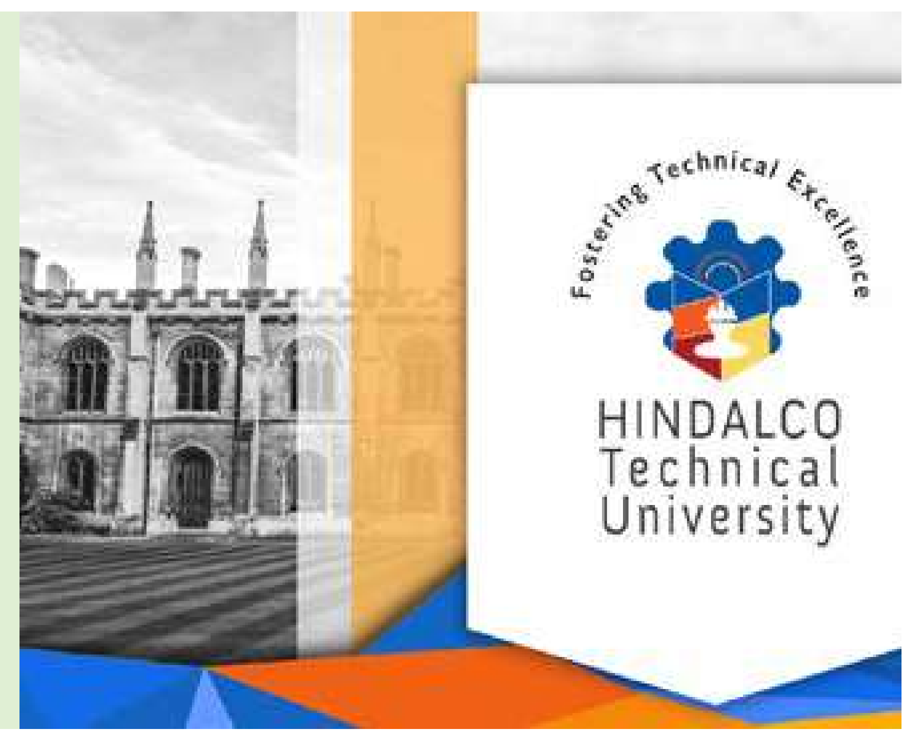
During COVID-19, our team at Hindalco Technical University faced many uncertainties and challenges on ways to continue training and upgrading the skills of our employees. Our teams put in efforts to come up with e-HTU after deliberation by making use of technology to provide learning in an engaging manner.

This kind of learning enabled employees to join these sessions from any location and gave opportunity to a wider range of employees to learn and gain knowledge. In addition to this, HTU introduced initiatives to cater to the needs of various stakeholder groups on the basis of Aditya Birla Groups values of collaboration, speed and seamlessness.

At HTU, the training programmes are helping our employees develop their digital skills, gain knowledge on sustainability and adoption of new technologies. Some of the programmes focus on capability development in VAP for our downstream operations, which is the key focus area of our business strategy. We were able to bridge gaps between our units and our corporate department by collaborating with various stakeholders such as manufacturing units, digital department, maintenance department, research and development department.

HTU. Hindalco's virtual university was inaugurated on 22 November 2017. It has 5 schools catering to Mining, Refinery, Power, Smelter and Downstream. So far HTU has conducted more than 750 programmes. Some of its signature programmes are:

1. **Six Sigma Green Belt Certification**
2. **Aluminium Value Chain**
3. **Project Management Professional**
4. **Sustainability Certification Capacity Building Program**
5. **Safety Capacity Building Program**
6. **HTU Technical Training Certification Program**
7. **BEE Certification Preparation Program**
8. **CEA Recommended Program for Power Plants**



15,000+

Participations in HTU programs

HTU: Key Highlights 2020-21

- At HTU, we were able to organise 117 technical training and e-learning events virtually during FY 2020-21 delivering 650+ hours of technical training. We saw a diverse participation in our events with 15000+ employees from Hindalco and other Aditya Birla Group businesses such as UltraTech, Pulp and Fibre and Grasim.
- During these challenging times, we encouraged digital learning by developing 16 customised e-modules on GVC application. In addition, we introduced 350+ courses on safety and sustainability and recorded 11,137 sessions of completion.
- We collaborated with 25+ original equipment manufacturers for the first time to enhance our technical learning. We created a unit of internal trainer capability for HTU covering 42 trainers across mines, upstream and downstream.
- Moreover, we achieved 100% compliance on conducting all our programs through Cornerstone OnDemand (CSOD), a software system which enables us to track learning of our employees. We also developed a training programme for installation of Eternia windows which are made using Duranium to support our new business.

Our future strategy involves leveraging the power of technology and providing access to the learning platform to all the employees who wish to enhance their knowledge, skills and competencies. We also plan on introducing augmented reality and virtual reality tools to improve learning among the employees. One of the key initiatives that we have undertaken is to develop and implement a Technical Career Path for Engineers and Subject Matter Experts (SMEs). As a manufacturing organisation, it is vital for us to develop and nurture personnel with deep technical skills in specific areas and hence we have come up with a technical career path which focusses on building specialised capabilities and recognising and rewarding people for the same. Apart from that, we have initiatives such as workmen training and supervisor skill development programmes, gamified learning platform for supervisors and workmen, JumpStart programme for Young Professionals and GETs to develop business as well as technical knowledge which is provided during the initial three years after they join the company.

Research Circle at Hindalco

Research Circle was introduced in August 2020 with an objective to share technical knowledge, innovations and research subjects like case studies, research paper. This platform is promoting research activities and at the same time serving as a bridge between researchers and practitioners.

This initiative has facilitated research activities and scientific approach to technical issues in bauxite refining, specialty alumina, Aluminium smelting, 3D printing. Our sustainability team is working in collaboration with Jawaharlal Nehru Aluminium Research Development and Design Centre (JNARDDC), Nagpur to implement the spent pot lining technology in our smelter plants. In addition, the discussion on 3D printing of additive manufacturing has resulted in a project for manufacturing of nozzles for calcination of alumina at Utkal which is ready for demonstration. All the research ideas and solutions are still under implementation.

Tech Fest and E-Summit

Our technical learning forum aims to bring our employees on the same platform to identify and promote best practices across Hindalco. This session is planned to discuss and resolve the key issues being faced across the units. HTU was able to conduct 12 Tech Fests till date. Similarly, we were able to conduct 17 Downstream E-summits during the pandemic by subject matter experts. The fests and the summits were organised virtually with a participation of 63.2% of full time employees which was 80% more compared to previous years. Cost savings of approximately ₹ 1.2 Crore were achieved with 1804 participants attending Tech Fest and 814 participants attending the Downstream E- summit.

JumpStart Six Sigma Project for GETs and Young Professionals

To develop the technical competency of our engineers and managers, we provide various specialised, general and certification programmes for our employees based on industry specific requirements. We are engaging with young professionals (GETs from 2017 and 2018 batch) to develop their technical competency on basic Aluminium and Copper manufacturing process and basic general functional topics such as systems, quality.

Learn Six Sigma is one such programme wherein every participant is asked to take up a project based on problem areas and gaps identified in our operations in consultation with senior managers and HODs. The projects once developed and analysed are then implemented in the existing processes, and gaps identified resulting in cost savings and improved efficiency of processes. Some of the projects undertaken in FY 2020-21 relating to manufacturing plant processes, which have enabled cost savings of ₹ 3.17 Crore are reduction in consumption of boiler convection bank tubes during annual overhauling of boiler, reduction in chemical treatment cost of raw water, reduction in anode effect frequency in Aditya potline and so on. Out of the 175 projects taken up by our young professionals from the GET batch of 2017 and 2018, nine have been successfully completed and the rest are under progress. Apart from this, we were able to gain trust of customers while optimising our operations.

OCCUPATIONAL HEALTH AND SAFETY

At Hindalco, we remain committed to providing a safe work environment for our employees, contractual workers, visitors and the community at large. We have adopted a three-pronged approach, which focusses on the improvement of working conditions, working environment and the protection and promotion of workers' health. Based on this approach, our Group Sustainability Cell has developed a technical standard Occupational Health and Safety Management.

Our objective of 'Zero Harm' has led us to develop a robust framework and safety across the organisation. Our occupational health and safety management system forms an integral part of this framework and covers all our employees, contractors, business associates, visitors and the community as well. In addition to that, all our manufacturing units and mines are ISO 45001 (2018) certified.

As a manufacturing organisation, it is vital for us to identify, assess and take preventive measures towards work related hazards and incidents. We have identified few high-risk activities such as arc flash from electrical switch gears, panel and molten metal splash, explosion at cast house and pot rooms based on past incidents. To protect our employees and workers, we provide them with high level protection suits and further have installed CCTV cameras for surveillance, VEDA (Video Enabled Data Analytics) for correcting the behaviours and also for COVID protocols. We also track our progress on Behaviour-Based Safety through Enablon (a sustainability data management system).

Our Safety organisation comprises the Apex Safety Board followed by the Unit Safety Boards. Each of the units have six safety sub-committees namely Safety Standard Implementation sub-committee, Incident Investigation sub-committee, Safety Audit and Assurance sub-committee, Safety Training sub-committee, Behaviour Based Observation sub-committee and Contractor Safety Management Sub-committee which take care of various safety functions and areas. All plants and mines have adequate, competent and trained safety professionals who are at the heart of driving all our Safety programs along with concerned line Managers and under the tutelage and guidance of our Corporate Safety Cell.

Some of the key initiatives that we have undertaken towards occupational health and safety are as follows:

- During the reporting year, we introduced e-permit and provided extensive training to permit applicants, area owners and approving authorities on permit to work system as well as software.
- We introduced Serious Injuries and Fatality (SIF) standard to manage major hazards across our operations. With this standard, we now have nine technical safety standards, 4 occupational health standards and eight administrative safety standards. To meaningfully implement these, we developed 300 subject matter experts (SME) in addition to the 866 SMEs developed in the last few years.
- Due to COVID-19 restrictions, this year we conducted safety audits for all 15 manufacturing sites of Hindalco virtually using "RealWare" tool. In addition, we conducted risk reviews of all activities (51,000+) having manual interventions.
- The large and medium sized unit hospitals have been equipped with major facilities such as OPD, clinical laboratory, eye unit, minor operation theatre and manned by qualified and competent personnel.
- We conduct various awareness and health promotion activities such as diabetic hypertension screening, awareness and advice on lifestyle, bone mineral density screening, occupational health and HIV awareness for our employees and contractual workers.
- In addition, we carry out awareness sessions on breast cancer, first aid and CPR training, sterilisation camp, cataract operation camps and other related activities for the dependents of employees in our township.

Safety Trainings at Hindalco

In order to ensure safety at workplace, we conduct various safety trainings such as the compulsory three man-days safety training per year for all our employees as well as contractual workers. We focus on making the trainings relevant and practical by engaging our employees in different modules.

Our employees are trained during induction and safety is a part of the refresher course on corporate policies, standards and safe work practices for occupational hygiene hazards. The need of training is identified for each employee based on various parameters such as past incident history of section and department, safety audit findings, inputs from the safety department, new standards and guidelines rolled out by Corporate Safety Department. The standard implementation sub-committee identifies individuals who require specialised knowledge skills and facilitate trainings based on their roles.

COVID-19 brought a lot of uncertainties and to adapt to such a situation, we moved from classroom trainings to virtual or on-the-job trainings. We ensured that all the social distancing norms were followed for on-the-job trainings. During these difficult times, we also focused on arranging trainings related to mental health and well-being. Based on the psychological safety training sessions on topics needs identified, we conducted more than 60 virtual trainings on 29 topics such as emergency preparedness, work at height, scaffolding safety, electrical safety and others with the help of HTU. Additionally, the Corporate Safety Department conducted a five-day session for SMEs and members of the task forces on hazard identification using job safety analysis, risk assessment and establishing control, chemical safety, hot work and fire safety, mobile crane safety.

Safety Training for Employees

Category	Unit	Aluminium and mines	Copper
Training on Safety - Management Staff	Numbers	5,395	457
	Man-hours	145,863	16,045
Training on Safety - Permanent Workmen	Numbers	13,071	1,042
	Man-hours	361,196	26,595
Training on Safety - Contract Employees	Numbers	15,719	2,987
	Man-hours	625,821	74,313

As a part of our strategy to prevent health and safety related incidents, we have identified two focus areas which are contractor safety management (CSM) and operational discipline. CSM procedure provides support in manpower deployment whereas the operational discipline ensures that proper measures to eliminate hazards are taken at all our units. In addition, under the serious injury and fatality prevention programme, safety alerts are circulated across units and all the serious unsafe observations are discussed and reviewed in our monthly unit and corporate Apex Safety Board meetings. The below table highlights the work-related injuries for the reporting year.

Category	Unit	Aluminium and mines		Copper	
		Employees	Contractual workers	Employees	Contractual workers
Lost Time Accidents	Number	19	25	4	4
Recordable Injury Accidents	Number	65	42	6	7
Fatal Accidents	Number	0	1	0	1
Man-days lost	Number	582	14,097	57	6,055
Total Recordable Injury Frequency Rate (TRIFR)	Number	1.57	0.67	2.65	0.96
Lost Time Injury Frequency Rate (LTIFR)	-	0.46	0.40	1.77	0.55
Lost Time Injury Severity Rate (LTISR)	-	14.07	224.47	25.19	829.19
Total Man-hours worked	Hours	41.35 Mn*	62.80 Mn*	2.26 Mn*	7.30 Mn*

*Mn- million

We are aiming towards zero fatalities and life-threatening diseases. We regret the occurrence of two fatalities in the reporting year. However, with our robust framework for health and safety in place, we were able to reduce the fatality rate from five last year to two this year for our contractual workers. Further to that, we did not report any fatality case for our employees. Our operations at Novelis also reported zero fatalities. The recordable injuries reported for the employees at Novelis were 90 during FY 2020-21, out of which 26 resulted in Lost time injuries. The total man-hours worked for our employees at Novelis was more than 20 million man-hours. Further, we reported 29 recordable work injuries for our contractors at Novelis. To work towards further bringing down the fatality rate we have developed a serious injury and fatality prevention programme which focusses on identifying blind spots in operational activities and taking measures to remove them by continuous monitoring.

The programme involves initiating a safety theme each month, circulating safety alerts, reviewing risk assessment of all the activities and finally developing an action plan for all the lost time injury (Cat 4) and potential lead to fatality (Cat 5). This has helped in reviewing 95% of all activities at Hindalco and sensitising the workforce.

95%

Of all activities at Hindalco are reviewed by the Fatality Prevention Plan

Health and Safety Future Goals

Short Term	Medium term	Long term
10% Improvement every year	**#1** In the manufacturing sector in Occupational Health and Safety performance	**Zero** Harm to all our stakeholders

Occupational Health Services

We are ensuring quality of our working environment by carrying our Qualitative Exposure Assessment (QlEA) followed by Quantitative Exposure assessment (QnEA) to assess the exact pollutant load to which individual or group of individuals are exposed. All our mines and units at Hindalco undergo this screening to improve the occupational health monitoring. In addition, we carry out periodical medical examination for both Company employees as well as contractual workers. Any other medical check-ups are decided based on the level of pollutant to which the individual or the group is exposed.

We also have specific health standards and undertake first aid and health emergency management, HIV, tuberculosis (TB) and malaria management and have employed qualified industrial health physicians at each of our units and mines. Further, we have another standard on occupational stress management in the pipeline to help our workers and employees manage work-related stress in a better way.

To minimise the risks, we follow the occupational health risk identification and management standard to ensure reduction of pollutants at source, reduction of exposure duration and providing appropriate personal protective equipment (PPE) for our employees. We encourage employees and workers to carry out self-assessment using a structured questionnaire for us to improve our service quality. Further, we have a non-discriminatory policy which ensures that employees affected with TB or HIV are not discriminated in any form. Moreover, this year we did not observe any work-related ill health.

Hindalco's Aluminium smelters produce metal of the highest purity

Safety Risk Assessment

The comprehensive risk assessment that we undertake for various activities help us in identifying high risk activities and mitigate them by following a structured technique called Job Safety analysis (JSA). Further, our Hazard Identification and Risk Assessment (HIRA) SMEs ensure that a comprehensive training is provided, and post training assessment carried out at the end.

We have included various platforms to report unsafe acts, conditions and practices such as safety committees at each units, suggestion and complaint boxes etc. Our contractor workmen can report the incidents at site through 'near miss and potential incident card system' or through their area supervisors. We encourage our employees and workers to raise safety concerns and approach respective area owners or department heads for any activity which can cause injury or ill health.

Water, Sanitation and Hygiene Pledge

As a part of Aditya Birla Group, we are a signatory to Safe Water, Sanitation and Hygiene (WASH) pledge movement of World Business Council for Sustainable Development (WBCSD) and all recommendations of WBCSD are implemented in letter and spirit with the aim to achieve universal access to water, sanitation and hygiene by 2050. Phase I was launched in January 2015 at 15 major units and progress was monitored through Enablon. Phase II of WASH pledge was launched in January 2018 which included additional sites taking the total count to 42 sites. Through our regular trainings, we were able to achieve a score of 1.86 at the end of December 2020 which is more than the group target of 1.8. We imparted 841 nos. of awareness campaigns and trainings which benefitted a total no. of 35,115 of employees and people under the WASH project.

Our response to COVID-19

As a responsible manufacturing company, we took various initiatives during the onslaught of COVID-19 by first forming a response plan. Our Crisis Management plan at corporate level as well as all units and mines level also ensured appropriate response to the crisis. We took care of our employees and initiated an offering of psychological safety training session. Apart from that, the temperature of all employees was monitored at the entry and entry restricted for visitors and domestic helpers. We were ensuring proper sanitisation of vulnerable locations on a daily basis.

We also arranged a 24/7 ambulance service for our township residents up to the hospital and provided health insurance for everyone including contractual workforce. Additionally, looking at health needs, we maintained a comprehensive wellness program, recognising the value of good physical as well as mental health to employees, families, and communities at each unit.

In the Line of Fire

Work related fire hazards is a big concern for our operations and to prevent such hazards we have undertaken this initiative of In line of Fire Safety in all our units.

We organised this training programme in February 2021 with an aim to identify, eliminate and reduce the intensity of damage due to any fire incidents.

In the past few years, there were a few injuries reported due to fire incidents and as a preventive measure, we took this initiative to raise awareness among our stakeholders on fire safety. With the help of this initiative, we were able to identify 10 line of fire activities per every 100 employees in each unit and further developed a mitigation plan to make our operations safer.

INTELLECTUAL CAPITAL

Keeping ourselves future ready

Our research competency, crucial collaborations with industry bodies and premiere research institutions have helped us expand and improve our business relationships. With the support of our world-class R&D centres with state-of-the-art technologies and our never-ending emphasis to achieve operational excellence in our value chain, we have been able to transform our business into a trustworthy brand synonymous with transforming the Aluminium and Copper business through innovative products.

Contribution to SDGs

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Interlinkages with Material Topics and other Capitals

Material Topics	Capitals Connected
Product Stewardship	Financial capital Natural capital Manufactured capital

Alignment with Strategic Priorities

SP-1: Focus on Value-Added Products
SP-2: Strong ESG Commitment

HIGHLIGHTS

₹ 790.15 CRORE
Spent on Research and Development including Novelis operation

259
New patents filed

331
New Patents Granted

32
New products launched

₹ 165 CRORE
Business due to launch of new products

Focus Areas

Future ready products	Explore and adopt cleaner technology	Partnerships and alliances with external institutions
Unique technology development for product and process optimisation	Strengthening the existing R&D infrastructure	Value from waste

At Hindalco, we aim to constantly adapt and grow through our continuous innovation and research capabilities. To future-proof our business, we are focusing on adopting clean technologies, optimising our current processes and strengthening our existing R&D infrastructure.

Our Novelis operations drive innovation with a focus on improving processes and the existing product portfolio. Efforts are channelised to increase recyclability and develop products which could be a superior alternative to steel.

Our strategy of future-proofing is guided by our approach towards product stewardship and technology development. We are contributing towards India's commitment to Net Zero by focusing on developing Aluminium and Copper products that improve resource optimisation, process efficiency and energy savings. This includes our efforts to achieve higher resource efficiency through beneficiation of low-grade ores, reusability of process water and rainwater harvesting to improve water efficiency and promotion of circular economy through value-added application of wastes.

Adopting digital transformation has helped us identify customer requirements on an ongoing basis. This understanding has led to improvement in the design and execution of projects, leading to the development of new products. Through the introduction of process automation, we have been able to focus on improving product and process optimisation. This philosophy is applicable to the entire process, starting from preparation of project charter, reviewing the progress at different levels, communicating the results and documentation of the project's outcome.

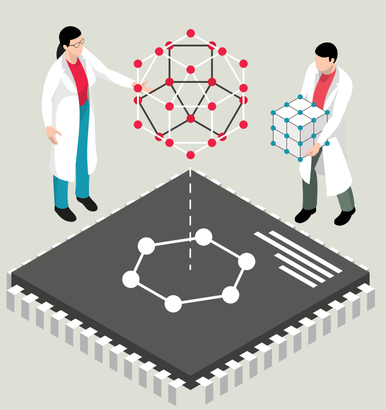
We endeavour to create value for all our stakeholders. We have moulded our objectives into strategic short, medium and long-term goals in product design and development. The prime focus of our R&D efforts has been to cater to the needs of our customers. To create value for our business, our short-term goal is to provide tailormade solutions to our customers in a timely manner as per their requirement.

We aim to maximise our business potential as well as add value to our product line up. We have set targets for developing new grades of alumina or hydrates for application in ceramic, refractory, glass, cement, polymer, and others in the next three to five years. We aim to develop various grades of Aluminium and specialty oils and lubricants for sustainable applications of the metal. Our long-term goal is to prepare our business for the future by developing a variety of products and technology aimed at enhancing productivity and profits. We are serving as an organisation that creates a wide variety of intellectual goods and so far, we have filed 259 patents while a few more are in the pipeline. We also aim at more collaborations with national and international organisations that will help us in our aim of future-proofing our business.

R&D centres for Future-Ready Products and Processes

The backbone of our product development and innovation in process and technology are our three innovation centres at Belagavi, Taloja and Dahej. The three centres specialise in alumina, bauxite, Aluminium, tribology and Copper-related metallurgical services. We are focusing on process ability studies for the efficient use of available raw materials in the Bayer process, improvement of process efficiency, energy savings and development of products and application in specialty alumina and hydrates. In addition to these, all our plants have their own R&D and Technical Cells for quality assurance, compliance with environment standards and the development of new products. Some of the recent areas of developments include high purity and multimodal alumina, reactive alumina, precipitated superfine, nano- and coated hydrates for different polymeric applications. Moving towards innovative solutions in our downstream, we have also introduced duranium alloy development, UV-C reflector, Aluminium e-rickshaws, and are working towards aluminising commercial vehicles, high-strength plates and sheets for marine and domestic applications.

We have a team of more than 200 employees dedicated to R&D and providing world-class solutions to our customers in the short and long term. We have a network of technology centres across the world with equipment and facilities like X-Ray fluorescence (for quantitative analysis), X-Ray diffraction (phase analysis), scanning electron microscope (for micro- structural analysis), inductively coupled plasma (for trace element analysis), total organic carbon analyser, differential scanning calorimeter, different types of furnaces, mechanical and electrical testing, equipment for processability studies, and polymeric application studies for specialty hydrates.



Our plants have their own R&D and Technical Cells for quality assurance, compliance with environment standards and the development of new products. Some of the recent areas of developments include high purity and multimodal alumina, reactive alumina, precipitated superfine, nano- and coated hydrates for different polymeric applications.

KEY AREAS OF ADVANCEMENT

To build on our Intellectual Capital, we have introduced an approach called Enabling Science. Two elements were identified of which one was to develop e-modules relevant to downstream business and the development of the Hindalco Rolling Course.

We have collaborated with HTU, downstream teams and SMEs for developing these elements. Further, an internal research knowledge sharing platform, Research Circle, has been created to promote collaboration and learning among technical professionals in the organisation.

Some of the significant products and processes developed by our team:

High purity 3N alumina (99.9%) for Li-ion battery application

This high purity alumina developed by our team is mainly used for Li-ion battery separators having critical properties such as chemical impurity and particle size. We were able to control the purity of alumina and particle-size through process monitoring during grinding, calcination and milling

Development of Lubricant for Wire Rod Application

Hindalco Innovation Centre (HIC) Tribology Team has developed an in-house lubricant for Wire Rod Application at Mahan Aluminium

Development of In-house Fire-Resistant Hydraulic Fluid (FRHF)

FRHF are specially formulated lubricants that are more difficult to ignite and do not propagate a flame from an ignition source. Our team has developed in-house FRFH for use at our plants

Development of Alloy for Architectural Formwork

The new alloy developed for architectural framework ensures better productivity gains and improvement in the processing speed of between ~40-130%. It has also shown quality gains, lower frequency of pick up and improved surface finish. The alloy has higher extrusion speed and exit temperature that leads to better mechanical properties. Further, the die withdrawal rate significantly reduces leading to productivity enhancement. The patent for this alloy has already been filed

Development of HVAC fin stock

The Aluminium fin stock that is used in domestic and industrial HVAC applications has stringent performance requirement of strength in service and formability at high speeds during production. The market is currently dominated by imported stock. At our Belur plant, the alloy composition was modified and a new process route for the rolling of such thin material using closed gap, speed tension rolling was developed. We have already started our commercial supplies for this product, which is being utilised by the industry

Process Development for Hydrate with Low Iron content

With the increase in demand for high purity alumina for gorilla glass and glass application of smartphones, the major concern remains the impurity of the different substances. With the development of this hydrate with low iron content, we will be able to cater to the market in an improved way

Development of Nano Hydrate

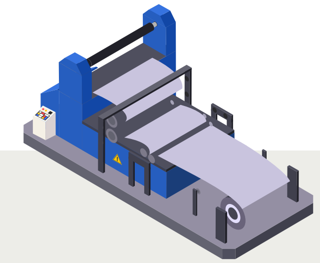
We were able to produce 60 kg spray dried nano-hydrate after a scale up in our pilot plant trial

Development of Green Cold Tamping Paste with Organic Binder

We were able to optimise the specifications and the properties by developing this new product, which was better than the cold tamping paste. The trial is ongoing right now and the patent filing is in process

Our Novelis operations team is working on growing our portfolio by using new technology in other parts of our business, specifically to cater to the aerospace market. We are continuously implementing automation, digital initiatives and advancements in R&D to further capture growth in the market and support initiatives involving sustainability.

One of the key products for Novelis remains beverage packaging, which is picking up growth around the world since customers are opting for a more sustainable solution.



Free Machining Aluminium Alloy

Materials with good machinability can reduce the cost of finished products and Free machine alloys contain constituents which improve machinability. Currently, the global market for free-machining extrusion alloys is 45 kT/annum.

Free machine Aluminium alloys such as AA6262 and AA2011 contain lead as an alloy for improving machinability. However, legislative regulations have been imposed on the usage of lead beyond 0.4% due to its toxicity. With this in mind, we have developed a new lead-free alloy at Aditya Birla Science & Technology Centre (ABSTC).

The new alloy contains addition of tin, which promotes formation of low-melting phases in the alloy and thus improves machinability. The new alloy demonstrates 20% lower surface roughness compared to regular extrusion alloys AA6061, AA6082 and is comparable to lead-based machining alloy AA6262. Cutting forces for the new alloy are also comparable to AA6262 and 20-25% lower than AA6061 and AA6082. The Sn-based alloy also promotes discontinuous and very small chip formation similar to AA6262 alloy.

Aluminium Matrix Composites

Aluminium and its alloys have various advantages – from being light weight to having high specific strength and others. However, these materials have limitations with respect to combinations of strength, stiffness, and wear resistance. Aluminium matrix composites are gaining importance to meet the ever-increasing engineering demands of modern technology.

ABSTC has developed a new in-situ process for synthesis of Aluminium-titanium carbide composite, using low-cost ingredients and scalable pneumatic powder injection and stirring process.

Due to the in-situ synthesis process, the TiC reinforcement particles have better wettability and thermodynamic stability in the Aluminium matrix compared to ex-situ Aluminium matrix composites. In addition to that, it has 25% higher Young's Modulus and 10-15% higher wear resistance compared to regular Aluminium alloys. Some of the areas of applications are in disc brakes, automotive cylinder liners and grain refiners. These applications offer a combined market potential of about 21 kT/ annum.

EXPLORING LOW CARBON TECHNOLOGY

To produce greener, stronger, smarter products, we continue to strengthen our technological capabilities and stay invested in innovation.

Our philosophy of innovation revolves around bringing sustainable solutions to our customers through the following ways:

Improvement in productivity	**Technological Improvements**	**Reducing Specific Energy Consumption**	**Adoption of cleaner technology wherever possible**	**Reduction of waste in our processes**

Hindalco's Everlast Aluminium roofing sheets, manufactured at our plants in Belur, Taloja and Renukoot, have been certified as a green product by CII-Green Products and Services Council. In addition, under our Value from Waste programme, we focus on creating value from waste through recycling and reuse options.

Aluminium Freight Trailer

We had launched India's first complete Aluminium freight trailer in December 2019. The trailer is a momentous initiative for India's logistics and freight industry. The trailer is 34-foot long, 50% lighter and weighs over 2.5 tons less than an equivalent steel trailer. The high-strength Aluminium alloy ensures that the vehicle is safe, strong, durable, efficient and environment-friendly. Each trailer saves over 15,000 litres of fuel and emits 25 tons less GHGs and helps in achieving BS-VI emission targets. It also has 70% higher scrap value.

Aluminium Bulker

In another project, we have replaced the steel with Aluminium in the manufacturing process, making it lighter by 1,800 kg, thus increasing fuel efficiency and reducing the GHG emissions. A 30 cubic meter bulker is approximately two tons lighter than an MS bulker of the same size. Improved fuel efficiency accounts for a saving of ₹ 50,000 per year along with reduced GHG emission per ton of material transported.

15,000 LITRES

Of fuel saved and 25 tons less GHG emissions by our all-Aluminium Freight Trailer

Aluminium Bus

Our Aluminium bus is also contributing towards reducing energy consumption by saving up to 18,000 litres of fuel and reducing 45 tons GHG emissions.

Electric Vehicle Battery Case by Novelis

Novelis has developed the very first Aluminium sheet battery enclosure, which is 50% lighter than an equivalent steel design and improves the range of single charge by 6-10%, allowing vehicles to run more. It can be customised according to different complex shapes for specific vehicle design requirements while protecting the batteries from road debris and vehicle crashes.

Sustainable Packaging

Sustainable packaging is one of the big steps that we have taken towards making India Single Use Plastic (SUP) free by developing a combination of Aluminium and jute bags. During this year, Taloja, Alupuram and Mouda were certified SUP free under the provisions of the plastic use protocol.

Recycling Products at Novelis

We created the first closed-loop recycling system, which allows us to take back as much of our customers' Aluminium scrap as possible, turning it back into the same product again. Recycling Aluminium produces 95% fewer GHG and requires 95% less energy than primary Aluminium production.

This enables Novelis to achieve lower GHG emissions despite increasing global production capacity. The key results compared to base year of 2007-2009 are:

- **Recycling of Al:** 61% (an increase of 31%)
- **GHG Emission:** 31% (reduction)
- **Energy Intensity:** 25 % (reduction)

End of life can recycling at Novelis

STRATEGIC PARTNERSHIPS AND COLLABORATIONS

To augment our capabilities in R&D we have strengthened our in-house capacity and partnered with different institutions and organisations such as IIT Bombay, ABSTC, IIT Kanpur, National Environmental Engineering R&D, Research Institute, Nagpur, IIT Madras and others.

One of our outcomes from the collaborations with IIT Bombay was in the field of utilisation of red mud in construction applications, which helped immensely in the disposal of wastes from the Bayer plant locations.

These institutions aid our R&D team through research in various fields such as in Copper process improvements, Aluminium smelting process improvement, value from waste in downstream, sustainable bauxite mining, and so on.

HIGHLIGHTS IN COLLABORATION: 2020-21

Reduction of Specific Energy consumption at Aluminium Smelters

In an ongoing comprehensive research programme, ABSTC is working on reducing specific energy consumption at Aluminium smelters. A series of recommendations have already been implemented at Hirakud, Mahan and Aditya smelters. The solutions include:

- **Anode rodding plant process optimisation**
- **Cathode lining**
- **Innovative Copper collector Bar (CuCB) technology**
- **Magnetic compensation**
- **Advance pot control and digital twin**

The learnings from implementation at a particular smelter are also being adopted and deployed across other smelters of Hindalco. We have been able to incur savings of around ₹ 40 Crore with this initiative and are expecting to save ₹ 250 Crore more after full implementation.

Improvement of Smelter-1 Throughput at our Copper Plant, Dahej

This is another example of our ongoing collaboration with ABSTC. Waste Heat Boiler (WHB-31) temperature is one of the main bottlenecks to increasing the feed rate from around 68 to 72 Tonnage Per Hour (TPH). To reduce the boiler temperature, a new bottom baffle has been proposed for implementation. Its design and its location inside WHB-31 had been determined through Computational Fluid Dynamics (CFD) simulations. The baffle has been fabricated and already installed in WHB–31, resulting in an increase in throughput by 2.5 TPH.

Copper Slag Application in place of Sand in Concrete-Making

Hindalco's Birla Copper, in collaboration with ABSTC and UltraTech, has established commercial utilisation of Copper slag as replacement for sand in concrete-making. Laboratory studies showed that desirable compressive strength can be achieved by replacing up to 50% of sand with Copper slag. The idea was piloted for an in-house application and subsequently taken up for 200 T demonstration at UltraTech Plant, Makdala. Based on successful demonstration, the slag is now being regularly used by UltraTech at their various locations for concrete application.

Bismuth and Antimony Removal from Copper Refinery Electrolyte:

To improve Copper cathode quality, HIC Copper has identified resin for the removal of both Antimony (Sb) and Bismuth (Bi) in a cost-effective manner. Based on encouraging laboratory results, pilot-scale trials at 500 L/h capacity were undertaken with the Copper refinery electrolyte solution. More than 60% removal of the impurities could be achieved. Regular use of the resin is now being examined.

Our collaboration with IIT Bombay and ABSTC has resulted in the filing of four patents, including two international patents. Researchers from these institutes were invited to share their research findings and future R&D needs with our colleagues in our Research Circle forum.

Copper slag is being used to replace sand in concrete

Hindalco employees are being equipped with knowledge to respond to cyberattacks

Digital Innovation at Hindalco

Digital transformation is the key to stay ahead in today's fast-paced world and we are diligently working towards achieving that. All our plant locations at Hindalco have been certified with ISO 27001 Information Security Management System. We have formulated an IT policy to improve our service delivery and to protect our organisational data. We review and update our policy periodically to strengthen our data security and processes. Our IT and digital functioning is led by our CDO (Chief Digital Officer) followed by the CIO (Chief Information Officer). We have also appointed a virtual CISO (Chief Information Security Officer) who manages various aspects of security and ensures organisation remains protected in this dynamic threat landscape of cyber world.

We are focusing on the consolidation of various applications, integration of systems and digitalising the manual processes. We have adopted a new technology endpoint detection and response (EDR) solution specifically for malware protection. In addition, we have also adopted Secure Web Gateway proxy solutions to manage our network security with ease. It is important that our employees have the awareness and the knowledge to respond to cyberattacks and threats. Towards that, we carried out learning programmes and simulation exercises on advanced cyberattacks and ways to respond to them.

Under Industry 4.0, and the current trend of automation and data exchange, we undertook two key developments which are cloud adoption and convergence of IT and Operation Technology. We have been able to improve our operations with the adoption of these initiatives. We have also been able to identify the topmost risks related to IT system availability and information security at our Belur plant. The mitigation plans for many identified risks have been implemented whereas work on others is under progress.

We organised our Downstream Digital Conclave in March 2021, as part of our knowledge sharing initiative. At the meet, each unit presented the benefits and their experience of deploying digital technology and discussed the focus areas for downstream, such as people engagement in digital projects, using digital technology to bridge data gaps, capturing benefits from existing deployments, and going paperless.

One of the biggest challenges we faced during COVID-19 was the security of organisational data while working from home. Since the majority of our workforce was working remotely, it was imperative to strengthen our IT infrastructure. With the adoption of EDR, cloud proxy and Cloud Access Security Broker (CASB), we were able to secure our data as well as network security services.

ISO 27001

Certification for all plants

Our Response to COVID-19

We took these challenging times as an opportunity to improve our services. Efforts such as social distancing, sanitisation, working in shifts, regular health check-ups, and other measures were undertaken to reduce risk of spreading infections at the workplaces as well as during commute. Various collaborative digital platforms were used to hold our virtual meetings amongst team members as well as with our clients and other key stakeholders. Virtual teamwork and simulations were worked upon to ensure ideation and innovation in processes and products while working from our homes during the lockdown.

Mining team at Baphlimali Mines

Aluminium Cot for COVID-19 Isolation

During the COVID-19 pandemic, the need for isolation and quarantine in hospital wards drove the team in Renukoot to design and fabricate ready-to-assemble Aluminium cots to support society.

The team developed an in-house design and prototype Aluminium cot fabricated with available extrusion profiles and sheet material at a cost comparable to those of cots available in the market. Design optimisation helped in reducing weight while maintaining desired strength of the cot. This cot adds value as 90% of the cost can be recovered in the future, and the fabrication cost is also low.

Development of UV-C Reflector Laminate for Sanitiser

During the pandemic, disinfecting and sterilising surfaces became a necessity. To meet the demands of the customers for such reflectors, a new product was developed at Mouda which had high reflectivity.

However, high purity specialised alloy or any specific manufacturing capability was not required. The product development has shown 10% improvement in luminosity and intensity of the sanitiser, and we were able to achieve higher reflectivity in laminate with the use of recycled Aluminium alloys.

Product Innovations

New Extrusion Alloy for Eternia Windows

We developed a new alloy for Eternia Windows which has superior strength and surface properties that differentiates it from the other system window brands. The new alloy has been launched under the name Duranium^{TM} and a patent has been filed. This alloy showed 35% higher yield strength vs minimum requirement and 5-15% higher yield compared to the nearest competitors. It also showed better anodising quality for the extruded profiles.

We were able to optimise the plant process parameters of casting and homogenisation and heat treatment of alloy while developing the new alloy composition with micro-alloying additions. This was done in conformity with the industry standard for architectural doors and windows. Our products Eternia and Erigo (Aluminium windows and doors) meet the requirement of GreenPro Ecolabel and are certified as green products by CII-Green Products and Services Council.

High Temperature Low Sag Conductor Alloy

High Temperature Low Sag (HTLS) conductors can withstand operating temperatures of 210°C without causing sag beyond permissible limit. This allows for more current to safely pass through these conductor wires.

A new Aluminium zirconium alloy has been developed by ABSTC and our team at Mahan for HTLS wire rod for manufacturing power conductors. The composition and casting process were developed and the heat treatment cycle was optimised at ABSTC.

The electrical conductivity and mechanical properties were achieved in the wire rods as per ASTM B 491-10. Customer trials for type testing is still under progress.

3SRC: High Strength Container Stack

Due to the COVID-19 lockdown, there were disruptions in the supply chain of Semi-Rigid Container (SRC). Our team sensed this as an opportunity to introduce a new alloy in the market with superior performance.

The 3SRC alloy was designed to have higher strength percentage formability, lower energy footprint due to reduction in homogenisation and annealing time and high recycle content. For commercialisation of the product, extensive baselining exercise was carried out to understand the requirements of different customers.

Accordingly, at HIC-Semifab, customised products for each customer was developed. Based on this alloy, we have introduced multiple customised products in 2020-21, adding to our story of creating value for our business.

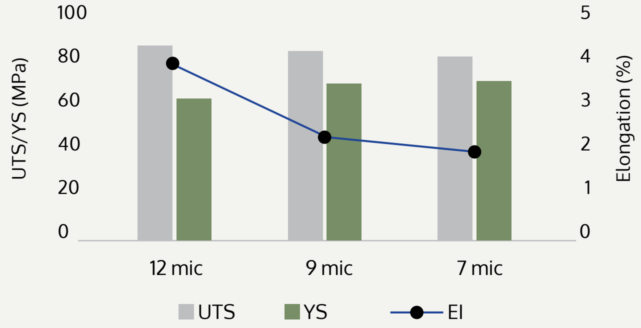
Circles for coated cookware

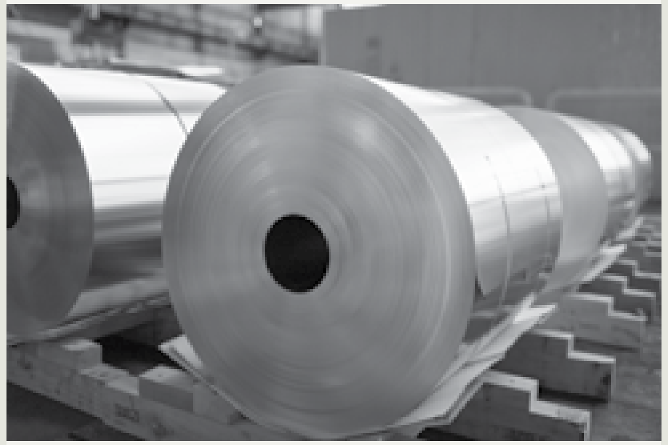
Aluminium alloy circles, a rockstar product for Hindalco, are used in a variety of cookware applications. Amongst several applications, coated cookware is a high growth segment due to lower cost, better surface finish and non-stick coating. One of the issues, however, is occurrence of stretch lines in final product post coating and drawing. To address the issues, detailed analysis of cookware designs, customer operation, and end application was carried out. This project was undertaken to reinvent the product so as to qualify Hindalco circles for roller coated segments.

The manufacturing process route was redesigned to obtain optimal mechanical properties in the finished product. Four different products, requiring different deep drawing ratio were qualified with the material improvement.

High strength foils for export market

Export of light gauge (LG) foils for flexible packaging, insulation, lidding and house foil from Mouda plant started in FY 2017-18. One of the reasons inhibiting the scaling up of the LG export was low ultimate tensile strength (UTS) of LG foils. Customers having high speed rewinding machines and laminators require high UTS material to avoid web breakage during the operation. Softer foils require the customers to run their machines at low speed, thereby lowering their productivity. A revised rolling practice was devised by modifying the thermal treatments and pass schedule for production of LG foils. The results of the trial indicated significant improvement in strength without adverse consequence on surface finish, rollability and recovery. The revised practice led to energy savings compared to current practice. Based on the positive feedback from customers, production was scaled up for both domestic and export customers. Due to the attractiveness of the revised route, the innovation has been implemented for medium gauge blister and pharma products as well.





Product Innovations

LPG cylinder development

Aluminium LPG cylinders are manufactured globally by several manufacturers. Hindalco Renukoot plant is qualified to supply Aluminium alloy circles for this application in the global market. The advantages of Aluminium LPG cylinders, i.e. light-weight, fuel conservation, longevity are well recognised by the stakeholders in domestic LPG industry. Concerns such as compatibility of Aluminium with caustic, ability to handle abuse, quality control in welding and economic viability have impeded its commercialisation in the last decade.

As part of a collaborative project, designs of cylinders were developed to meet the specifications of the international standards. Virtual design verification studies showed that Aluminium cylinders could be designed to meet the yield and burst pressure requirements while volumetric expansion and drop tests need experimental verification.

Two major challenges in fabrication were deep drawing of the circles and obtaining consistently adequate weld quality. Several improvements in terms of welding power source, fixture, practices, consumable and automation led to significant and sustainable improvements in weld quality. The other two work streams focussed on optimisation of the heat treatment and development of in-house test facilities. Testing of cylinders confirmed that the cylinders meet requirements of global standard in terms of yield pressure, burst pressure, volumetric expansion and mechanical properties (tensile, bend) of base metal and weld coupon.

Successful qualification paved the way for drafting of Indian standard for "Gas cylinders — Refillable welded Aluminium alloy cylinders — Design, construction and testing". The draft of the standard has been approved and is ready for publication. Discussions on launching this product are going on with potential customers.

Can Body Stock Development

Aluminum cans are one of the key applications of Aluminium alloys globally and a preferred packaging option due to key advantages like high barrier properties, excellent recyclability, light weight, thermal properties and aesthetics. The cans are a highly engineered product designed for production at a very high speed. Hindalco's Hirakud plant has worked closely with Novelis and its suppliers on developing this technology for the first time in India. The alloy design and casting process is critical for production on rolling ingots that can be used for CBS.

State of the art tandem hot rolling mill is used to produce the hot band which has special properties to control earing in the final product. Cold rolling is carried out at very high speeds to ensure very high strengths are achieved in the alloy. Close control of the finishing operations and lubrication ensure that the customers are able to use the material in their lines without any disruptions during the drawing and ironing operations.

These coils have been tested internally and at can pilot lines. The trials are underway with both domestic and global customers to qualify Hindalco as a supplier for world class can body stock.

Copper-insert Collector Bar Technology for Hindalco Smelter

ABSTC (ABG's corporate R&D center) along with plant technical team developed in-house Cu-insert Collector Bar (CuCB) technology for its Hirakud, Aditya and Mahan smelters. CuCB technology was first developed and tested in Hirakud 85kA pot during 2016, subsequently it was further customised to put on trial in Mahan 360 kA pot during 2018.

CuCB technology has helped in saving specific energy consumption of about 250 - 300 kWh/ton of Al along with gain in current efficiency to aid extra metal production. Patents have been filed for the CuCB technology.

Treatment of Phosphogypsum with Lime for Use in the Cement Industry

Lime Mixing with phosphogypsum aids in pH Improvement and P_2O_5 fixation to make it suitable for use in cement industry. Our team conducted several lab and plant trials for controlled dosing of lime and homogenous mixing varying between 0.5-3% concentration of lime, to understand if the resultant can be suitably used in the cement industry.

Based on lab trials, we found that controlled dosing of 1-3% lime to phosphogypsum will improve its pH from ~1.5 to 6 and fix 30-35% free phosphorous pentoxide (P_2O_5) in the form of calcium phosphate. However, total phosphate in phosphogypsum remains unchanged even after addition of lime.

The conversion of free pentoxide to phosphate provides an added advantage by reducing the adverse effect of P_2O_5, such as impacting the compressive strength of cement and reaction with cement clinker during the process of cement making. The idea has been commercialised. So far, more than 10 Lakh tons of phosphogypsum has been used by the cement plants.

Development of White Hydrate (ONYX) Grade Muri

We developed onyx alumina hydrate or white transparent hydrates which are deep white, clean, translucent in appearance which can be used for cast polymer application. Showa Denko, Huber and Chalco have been producing this grade and the total market potential is 4,250 T / month as alumina. India's demand is up to ~2.0-2.5 KT as Alumina.

After a successful development of this product, our pilot scale trial was conducted using the Precipitated Superfine Hydrate pilot plant facility at Belagavi. We have also sent hydrate samples to customers, seeking their feedback.

NATURAL CAPITAL

Preserving and Enriching our Environment

Being one of the leading companies in the metals and mining industry, we realise our role in driving change for the better. Living in these unprecedented times has posed a challenge to many aspects related to life on earth, with the environment being the most crucial. In our endeavour to build a sustainable value creation model, Natural capital has proven to be a strong pillar.

Aligning ourselves with our strategic priority of a strong ESG commitment, we continue to integrate environmental aspects through every aspect of our value chain. Issues such as GHG emissions, groundwater depletion, resource scarcity and pollution compel us to act in a manner which would address these challenges and also prove beneficial to our business growth.

Contribution to SDGs

Interlinkages with Material Topics and other Capitals

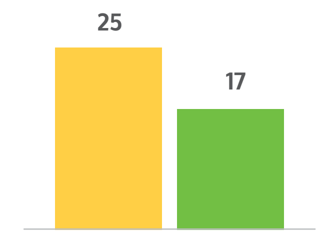
Material Topics	Capitals Connected
Waste and Hazardous waste management	Financial Capital
Energy Management	Manufactured Capital
GHG Emissions Management	Intellectual Capital
Air Emissions	Human Capital
Water Management	Social and Relationship Capital
Compliance Management	

Alignment with Strategic Priorities

SP-2: Strong ESG Commitment

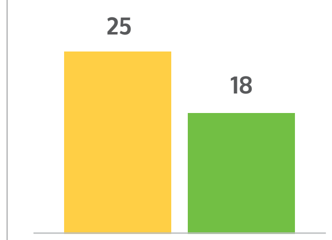
HIGHLIGHTS

Reduction in Specific Energy Consumption - Aluminium (%)



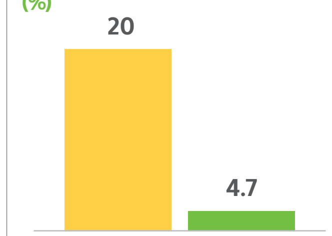
Base Year: FY 2011-12
Target year: FY 2024-25

Reduction in Specific GHG Emissions - Aluminium (%)



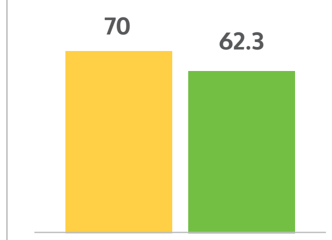
Base Year: FY 2011-12
Target year: FY 2024-25

Reduction in Specific Fresh Water Consumption - Aluminium (%)

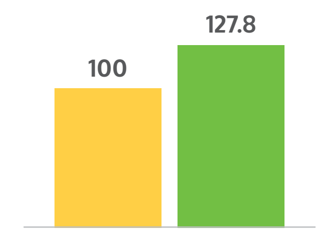


Base Year: FY 2018-19
Target year: FY 2024-25

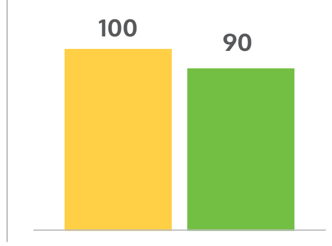
Bauxite Residue Utilisation - Aluminium (%)



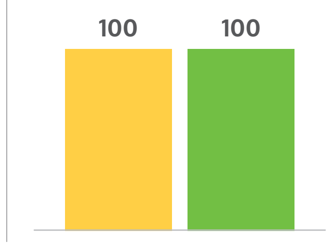
Dross Utilisation - Aluminium (%)



Fly Ash Utilisation - Aluminium* (%)



Fly Ash Utilisation - Copper (%)



Slag Utilisation - Copper (%)

Target   Achievement by FY 2020-21

Achievement as on 31st March 2021

*90% utilisation for useful applications, such as in cement, manufacturing, construction industry, brick manufacturing, backfilling of low-lying areas etc. and the remaining 10% is stored in approved structures.

We abide by our environment management system that enables us to work towards nurturing the natural capital. With the support of Hindalco's Sustainability Committee, we follow industry best practices and undertake initiatives to further improve operational efficiencies. Led by the Managing Director, this committee helps us keep track of our performance through periodic reviews. Further, we have a Sustainability Committee at plant level and Task Forces working on Energy, Water, Waste and Air Quality support in continuous improvement by implementation of identified initiatives.

All our operational locations ensure full compliance to all applicable regulatory norms and procedures. All our operating sites are ISO 14001:2015 certified. In addition to this, we have received a central certification for all the management systems for all the locations, including corporate office. During the reporting period, we faced one incident of environmental non-compliance that resulted in payment of penalty to the respective authorities as a corrective measure.

In January 2021, Uttar Pradesh Pollution Control Board (UPPCB) levied a penalty of ₹ 25.2 lakhs for non-functioning of STP. Details of the functioning were furnished to UPPCB requesting for a withdrawal of the fine. Subsequently, in February 2021, more supporting documents were provided to UPPCB and the penalty of ₹ 25.2 lakhs was paid in protest.

Our expenditure towards environment protection was ₹ 554.5 crore for the reporting period.

4,672.2 ACRES
Green Cover

OUR CLIMATE STRATEGY

In line with global climate goals, we have adopted a well-defined energy management strategy to reduce our energy consumption, integrate renewable energy sources and adopt efficient ways of energy usage.

A view of our solar plant at Aditya

Energy Management

The energy-intensive nature of our business operations not only drives us towards energy saving measures but also directs us to increase the share of clean energy in our overall energy mix. To accomplish our goals of resource conservation, we regularly monitor our energy performance at all our operating units as well as corporate locations. To accomplish our goals of resource conservation, we regularly monitor our energy performance at our operating units and corporate locations. Involvement of our top management during these reviews helps us to make improvements in the system for optimising our energy consumption patterns. During the reporting period, Aditya Aluminium has been certified with ISO 50001. With this, a total of five plants/locations are now ISO 50001 certified. Additionally, stage-1 audit for certification has been completed at Utkal Alumina.

Staying committed to our goals of energy conservation, we commissioned an additional 2.3 MW solar capacity at Alupuram unit in September 2020. While this has helped us to establish a cumulative renewable energy capacity of 49 MW in the current year, we have set a target of 100 MW to be achieved by FY 2022-23. Solar PV power plants at five locations, totalling 49 MW, are under different phases of implementation. There are delays due to the COVID-19 restrictions, but we target to complete and commission all the planned projects by March 2022.

255.18 MILLION GJ

Total energy consumption for India operations

Industry Charter for Near ZERO Emission by 2050

Additionally, feasibility for a renewable hybrid with storage project is under progress at our Dahej unit in Gujarat. We have also undertaken feasibility study for installing additional solar capacity, including floating solar options. Further, we are evaluating new and emerging technologies related to energy storage and Carbon Capture Utilisation and Storage (CCUS) projects.

Our focus is on adopting measures to minimise our energy consumption for reducing our carbon emission footprint. With an ambition to achieve 'Zero Net Carbon' by 2050, we are identifying focus areas and working out a detailed roadmap for the same.

In this direction, we have also signed an 'Industry Charter for Near Zero Emissions by 2050' facilitated by The Energy and Resources Institute (TERI) in September 2020. Within this charter, our focus is to work on policy intervention in the areas of India's energy mix, renewable energy and open access to electricity while exploring ways to work together on Zero Carbon Fuel and Carbon capture, utilisation and storage areas (CCUS).

Further, to contribute to our goals of sustainable energy usage and cost optimisation, we encourage our employees to undertake an examination conducted by the Bureau of Energy Efficiency (BEE) for the role of Energy Manager and Energy Auditor. Unfortunately, due to the COVID-19 pandemic, this examination could not be held this year. However, we conducted a six-day training programme for our employees on a preparatory course with the help of HTU. This programme was attended by 110 participants.

Additionally, we have conducted inter-plant energy audit for all our 13 locations. A total of 13 teams, including 29 energy auditors, ISO 50001 certified auditors and process experts, were involved in the audits which we plan to conduct every six months.

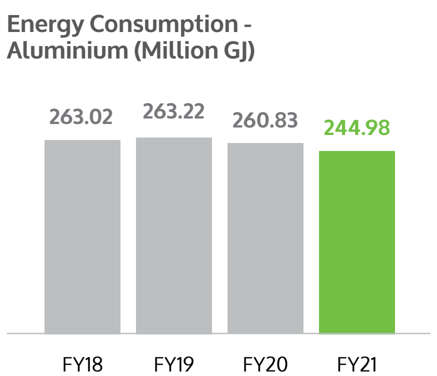
Energy Consumption

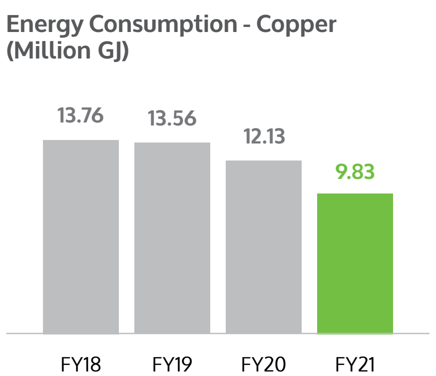
We try to meet our energy demands through both renewable and non-renewable sources. Energy optimisation is vital to our environment management system and to accomplish this we integrate the principles of energy conservation throughout our business operations.

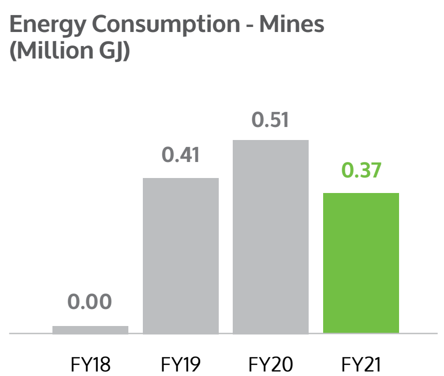
We take various steps to reduce energy consumption within our system by implementing the Management System – Energy and Carbon Technical Standard and ISO 50001. We have also undertaken project focused on smelter efficiency improvement. We also conduct periodic energy audits at our plants to keep a track of our performance and identify areas of improvements. For our concerted efforts at our various locations we won many accolades during this reporting period. For our smelter unit and power plant at Hirakud, we received the Excellent Energy Efficient unit award at 21st National Energy Award for Excellence in Energy Management 2020 hosted by the Confederation of Indian Industry (CII). We have been awarded with Best Energy Efficient plant for Mahan under power plant category in the western region by Mission Energy Foundation, CII.

Our total energy consumption stood at 255.18 million GJ, including 0.37 million GJ from our mining operations. We have been successful in reducing our overall energy consumption in the past four years.

Energy Consumption Trend







There has been a consistent increase in the share of renewable energy in our total energy consumption for the year.

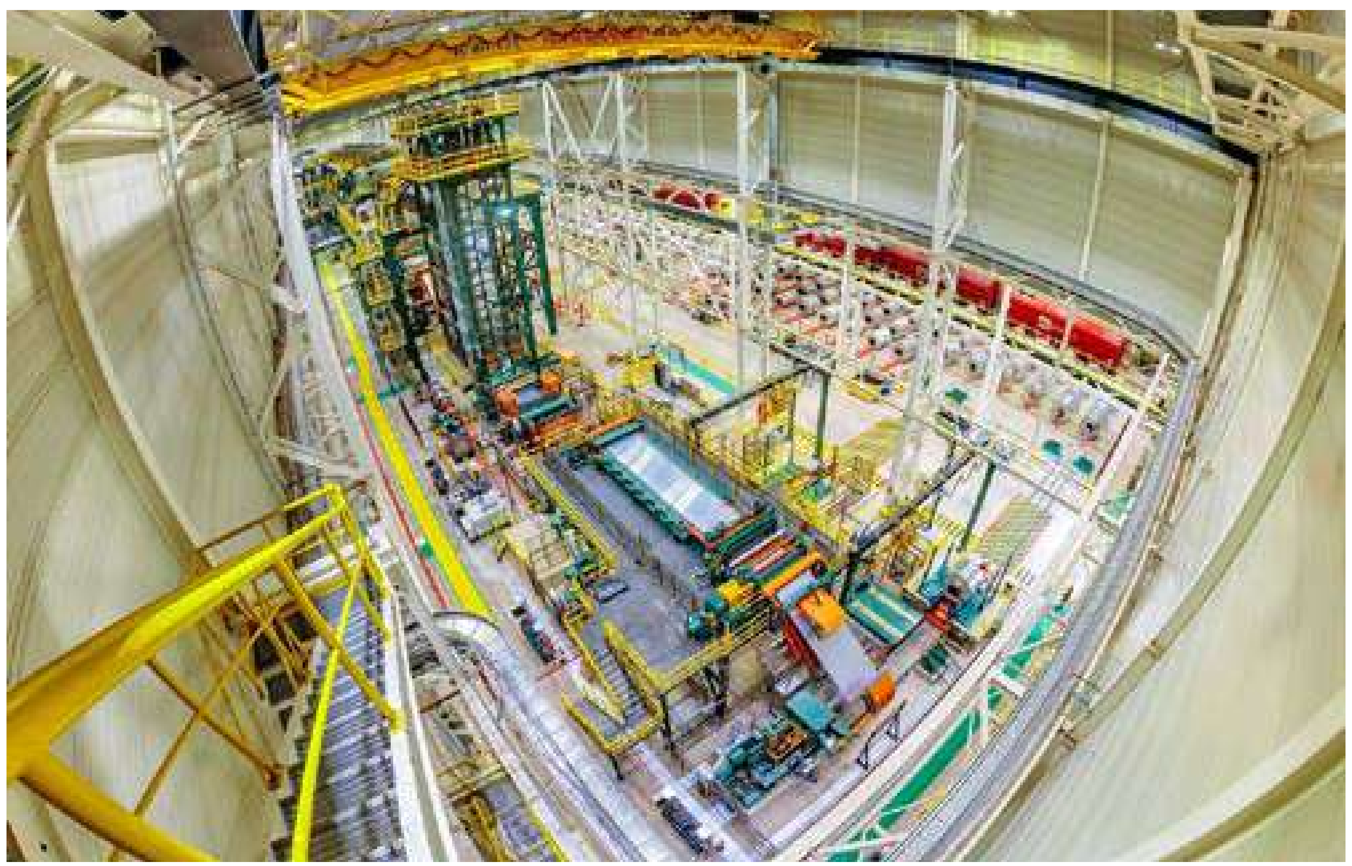
Rise in Renewable Energy Consumption

Source of energy (million GJ)	2017-18	2018-19	2019-20	2020-21
Renewable Energy	0.01	0.14	0.23	0.28
Non-renewable Energy	276.77	276.64	272.73	254.9
Total Energy	276.78	276.78	272.96	255.18

Energy Type (million GJ)	2019-20	2020-21
Fossil Fuels	273.79	255.65
Purchased Electricity	3.03	1.9
Renewable Energy	0.23	0.28
Steam/Heating/Cooling and Other Energy (Non-Renewable) Purchased	0.002	0
Total Non-Renewable Energy (Electricity and Heating & Cooling) Sold	4.10	2.66

31.36 MILLION GJ

Energy consumption at Novelis during 2020-21



Novelis is implementing systematic energy-savings efforts

A view of our flat-rolled products plant at Hirakud. Hindalco has implemented the Energy and Carbon Technical Standard and ISO 50001 to reduce energy consumption

Energy Intensity

Tackling the challenges of resource scarcity, we have formulated plans to minimise our total and specific energy consumption.

Our efforts have led to a 17% reduction in specific energy consumption in Aluminium production as compared to the base year FY 2011-12 against our target of 25% reduction by 2025.

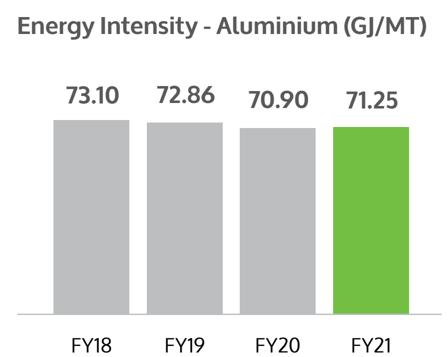
For Aluminium, the energy intensity is reported for process energy consumed for primary Aluminium production, which includes energy consumed in the Aluminium refinery, Aluminium smelter and carbon anode plants in their ratio of use per ton of metal. For Copper, energy intensity is reported for process energy consumption for Copper production, which includes energy consumed in the Copper smelter and Copper refinery per ton of Copper produced from Copper concentrate.

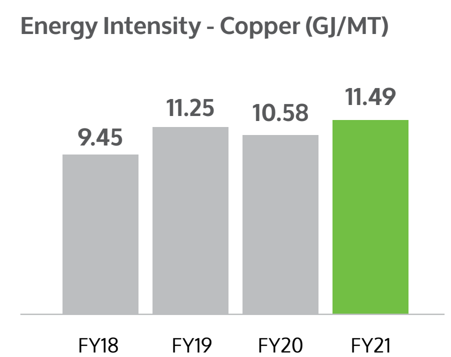
Our operations were impacted due to COVID-19 pandemic as we shut down and then restarted our operations at multiple occasions, resulting in an increasing trend of energy intensity values.

12 GJ/MT

Specific energy consumption at Novelis operations

Energy Intensity Trend





ENERGY CONSERVATION

During the reporting period, we undertook various energy savings initiatives at our plant locations. These projects led to energy savings of 0.68 million GJ, resulting in a corresponding reduction of 0.07 million tCO_2e emissions. Moreover, our initiatives led to cost savings of ₹ 669.9 million during FY 2020-21.

We undertook a total of 124 projects during the reporting period, which are anticipated to save 2.54 million GJ of energy and prevent 0.25 million tCO_2e of emissions in the future.

We have seven plants viz. Renukoot, Mahan, Hirakud, Utkal, Belagavi, Muri & Taloja, notified under Perform, Achieve, Target (PAT) cycle II & one plant, Aditya Aluminium, notified under cycle III. During the reporting period, we successfully completed the monitoring and verification audit at Aditya and Muri plants as per the PAT compliance. The audit was conducted by a BEE approved energy audit agency. We achieved an actual reduction of 9% and 8.8% in specific energy consumption against the target of 4.7% and 6% in PAT cycle II and cycle III respectively.

Our Renukoot plant has received the Best Achiever Award under PAT cycle II by Uttar Pradesh State Designated Agency (UPSDA) during FY 2020-21.

₹ 669 MILLION

Cost savings from energy and emission reduction initiatives in FY 2020-21

Energy Conservation Initiatives at Mahan

Our interventions not only attempt to reduce our energy consumption but also implement methods that will lead to cost saving. These attempts were undertaken at Mahan smelter, which uses compressed air that is seven times costlier than electrical energy. To save on cost and energy, these initiatives were taken to minimise the consumption of compressed air.

- Periodic compressed air leakage audit conducted along with tagging by using ultrasonic leak detector
- Compressed sit was replaced with the use of air amplifiers wherever used for cooling and wiping application
- Solenoid operated valves used for automatic shut off whenever equipment stops to prevent wastage of compressed air
- Rechargeable battery-operated air blowers used for cleaning application instead of compressed air
- A separate air line from 800 cubic feet per minute (cfm) for bulker unloading installed to eliminate the need of operating additional main compressor that has high flow rate
- Compressed air supply is stopped to perimeter metal level sensors once ambient temperature reached after stoppage of ingot casting, wire rod mill & billet casting
- All panel air conditioning panels restored; panel cooling by compressed air eliminated
- No transportation of alumina by road in FY 2020-21, leading to reduced compressed air consumption and reduced carbon footprint

29 LAKH UNITS

Energy saved by these measures in FY 2020-21

EMISSIONS MANAGEMENT

Embarking on our journey of sustainable development, we are determined to integrate methods to reduce emissions generated through our operational activities. To move closer to the 'Net Zero Carbon' goal of 2050, we have utilised ways to use energy in an efficient manner, increase the share of renewable energy in the total energy mix.

Solar Plant at Alupuram

Devising a product development strategy to design sustainable products, our focus is on lowering the carbon footprint through a range of our Aluminium products such as Aluminium railway wagon, Aluminium trailer, Aluminium bulker, Aluminium bus, LPG cylinder and Aluminium foil laminated jute bags.

GHG Emissions

Regular performance review helps us keep a track of our emission generation and further formulate plans to reduce our carbon footprint. To calculate our GHG emissions, we use relevant industry standard factors as prescribed by Intergovernmental Panel on Climate Change (IPCC). We also follow the guidelines defined by the World Resource Institute's (WRI) Greenhouse Gas (GHG) Protocol to estimate emissions generated as result of our operations.

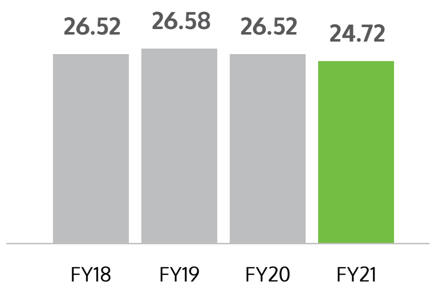
As a responsible corporate citizen, we make the best effort to meet our Renewable Purchase Obligation (RPO) in a timely manner. During the year, we mostly met our obligation through consumption of renewable power and through adjustment of previous excess purchase of Renewable Energy Certificate (REC). We could not buy any REC during the year as there was no trade during the period from July 2020 to March 2021 due to a stay order of Apellate Tribunal for Electricity.

Details of scope 1 and 2 emissions from our Aluminium and Copper businesses have been presented in a tabular form. Development of a mechanism to estimate our scope 3 emissions is underway, a company level charter has been prepared to estimate these emissions for activities such as procurement and travel. There has been a consistent increase in the share of renewable energy in our total energy consumption for the year.

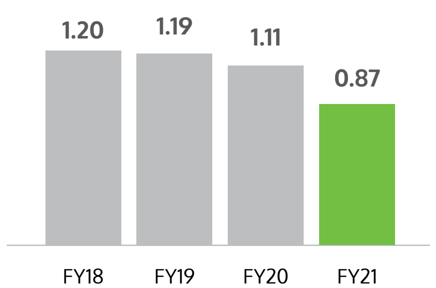
Scope 1 and 2 Emissions

	Scope 1 GHG Emissions (million tCO_2e)		Scope 2 GHG Emissions (million tCO_2e)	
	Aluminium	Copper	Aluminium	Copper
2017-18	26.09	1.18	0.43	0.02
2018-19	26.07	1.15	0.51	0.04
2019-20	25.94	1.00	0.58	0.11
2020-21	24.33	0.83	0.39	0.04

GHG Emissions - Aluminium (Million tCO_2e)



GHG Emissions - Copper (Million tCO_2e)



GHG Emissions at Novelis

Type of Emissions	GHG Emissions (million tCO_2e)
Scope 1	1.48
Scope 2	1.12
Scope 3	11.82

Scope 3 emissions from our Novelis operations is reported as 11.82 million tCO_2 which includes emissions purchase of goods and services from our upstream operations and transportation and distribution from downstream operations

PFC Emissions

During the reporting period, increased anode effects in smelter rooms resulted in increase of Perfluorocarbon (PFC) emissions.

PFC Emission Trend

Parameters	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Direct PFC Emissions (kg CO_2e/ metric ton produced)	215	310	269	285

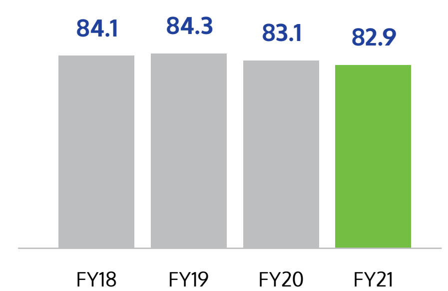
GHG Emissions Intensity

Reduction in Specific GHG Emission is crucial to achieve the ultimate goal of 'Zero Net Carbon'. Therefore, we constantly strive to make efforts in this direction through our operational activities. GHG emission intensity for our Novelis operations is reported to be 0.57 tCO_2e/MT and 0.43 tCO_2e/MT for Scope 1 and Scope 2 emissions respectively.

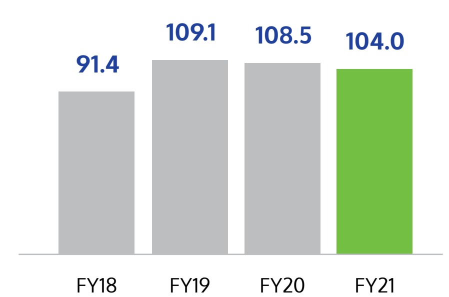
A view from our Belagavi plant. Hindalco has developed SOPs to create green belts in the units

Specific GHG Emissions Trend

GHG Emissions Intensity - Aluminium (% indexed to FY15 as base year)



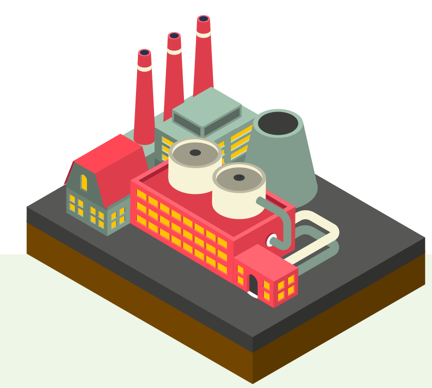
GHG Emissions Intensity - Copper (% indexed to FY15 as base year)



Other Significant Air Emissions

We regularly monitor the generation of significant air emissions through a third-party agency. These agencies help us to monitor these emissions through Continuous Emissions Monitoring System (CEMS) ensuring compliance to the regulatory requirements. This system captures data continuously round the clock and shares it with the Pollution Control Board (PCB). We follow the National Ambient Air Quality Standards (NAAQS) to ensure our stack emissions are within permissible limits.

Stack emissions intensity for Aluminium is reported for process energy consumed for primary Aluminium production, which includes stack emissions from Aluminium refinery, Aluminium smelter and carbon anode plant in their ratio of use per ton of metal.



Specific Air Emission Intensity for Aluminium 2020-21

12.661 KG/MT
SOx

7.38 KG/MT
NOx

4.56 KG/MT
Particulate Matter

0.14 KG/MT
Fluorides

Calciner stack and ESP at Utkal Alumina

Measures to Reduce Stack Emissions

- Action plan prepared for installation of Flue Gas De-sulpurisation (FGD) units at our Aditya, Mahan, Utkal, Renukoot and Renusagar power plants
- Lime dosing along with coal at our plants at Dahej, Muri and Hirakud to reduce our SOx emissions
- Switch to low sulphur fuels like Light Diesel Oil (LDO) and Natural Gas (NG) in place of furnace oil at all our locations
- Plans afoot to reduce NOx emissions by installing low NOx burners and optimising air flow in the boilers
- Two projects implemented at Mahan and Aditya, leading to reduction in NOx emission below 450 mg/ Nm^3

To reduce PM emissions, we have upgraded the rectifiers with High Frequency Transformer Rectifier (HFTR) of the electrostatic precipitator (ESP) at all our units located in Aditya, Mahan, Renukoot, Renusagar and Muri. Further, our units are taking steps to keep the ambient air clean and fresh for the health of our workforce. We are installing misting canons and sprinklers at fine handling areas in order to reduce the associated fugitive emissions. We are also deploying vehicle washing systems and road sweeping machines to keep our equipment and property completely clean.

We have developed standard operating procedure (SOP) for creating greenbelts at our units so as to develop thick and lush forests in our plants which act as a barrier towards fugitive dust emissions while enhancing the ambient environment.

Type of Air Emissions (000' MT)	Aluminium	Copper
Particulate Matter (PM)	9.66	0.12
Oxides of Nitrogen (NOx)	34.62	0.06
Oxides of Sulphur (SOx)	78.80	0.55
Fluoride	0.09	0.00

Emissions from Aluminium Business

Type of Air Emissions (000' MT)	CPP	Process
Particulate Matter (PM)	7.19	2.59
Oxides of Nitrogen (NOx)	30.24	4.43
Oxides of Sulphur (SOx)	72.10	7.25
Fluoride	0.00	0.09

ODS Emissions

Our ozone depleting substances (ODS) emissions in CFC 11-eq stood at 0.25 kg during 2020-21.

ODS Emission Trend

Parameters	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
ODS Emissions (kg of CFC-11 Eq.)	0.23	0.43	0.36	0.25

Installation of Wind Screens at Dahej

Our Birla Copper plant situated at Dahej, Gujarat has a captive thermal power plant and a coal yard facility which stores different types of coal. As this plant is located on the seashore, wind velocity is high throughout the year. Due to this, heavy fugitive dust emissions are generated on most of the days while handling, blending and charging the coal. To address this issue, we installed 14 m high wind screens around the 1,200 m periphery of the coal yard.

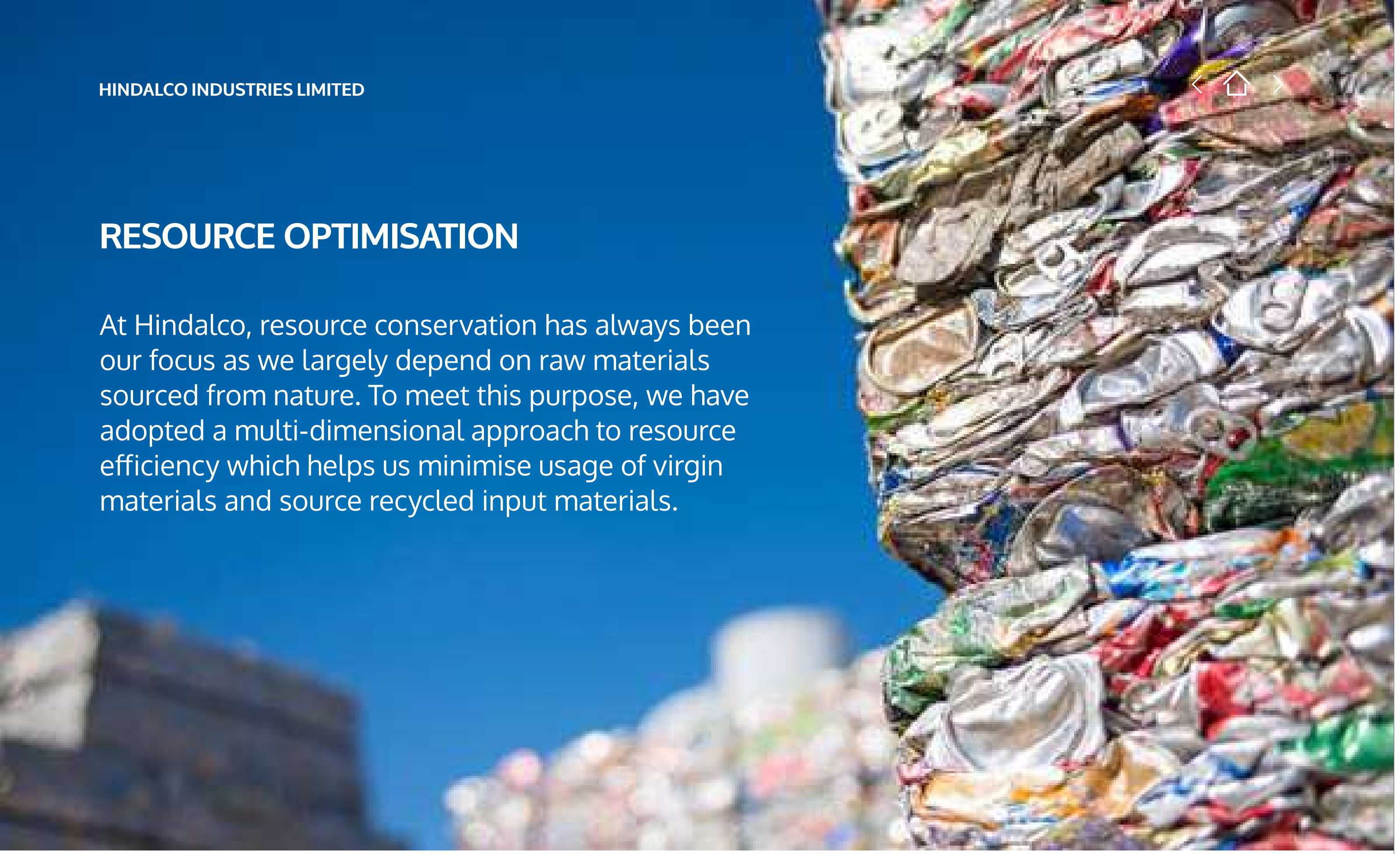
These wind screens have shown visible results, such as reduced dust in nearby areas, and have resulted in ambient air quality improvement. A major advantage has been the improvement in the work environment within the coal yard, and this has been much appreciated by our employees.

Use of Mist Canons for Fly Ash Storage at Hirakud

Fly ash is generated as a result of the operation of coal-based power plants. The ash has a high tendency of becoming air borne, and this poses a threat to the environment as well as to human health. One way of preventing these fugitive emissions is to increase the moisture content of the ash on its surface so that it is not blown away by the wind.

The team at Hirakud installed two fog canons to tackle this issue. These canons have a water consumption of about 35 litres per minute (LPM) and a throw of over 50 m. These canons dampen the ash and increase the moisture content which results in a slurry-like effluent that is even more harmful and is difficult to store. Apart from this, wind significantly reduces the throw of a mist canon which impacts its operations.

To solve this problem, the team at Hirakud conducted several experiments involving the calculation of throw distance at various angles of projection and monitoring speed and direction of wind with respect to projected water spray. Based on these experiments, the team devised optimum operating positions for the canons and developed a robust operating procedure to tackle this issue. This resulted in lesser deposition of fugitives on the surfaces near the ash handling area, improved ambient air quality and a lower health impact on employees.



RESOURCE OPTIMISATION

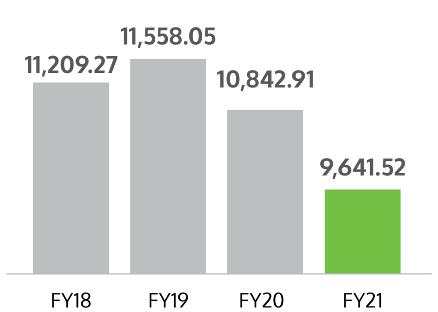
At Hindalco, resource conservation has always been our focus as we largely depend on raw materials sourced from nature. To meet this purpose, we have adopted a multi-dimensional approach to resource efficiency which helps us minimise usage of virgin materials and source recycled input materials.

Material Consumption

Our raw material consumption for the reporting period amounts to 9,641.52 thousand MT. Total packaging material consumption stood at 8,394.94 MT, out of which 5,992.55 MT was wood and 1,088.46 MT was paper. During the reporting period, due to the absence of Di-ammonium Phosphate (DAP) production, there was no consumption of rock phosphate. Also owing to the COVID-19 pandemic, our operations were impacted, which resulted in low production in FY 2020-21, which, in turn, affected our ammonia consumption.

Material Type ('000 MT)	2017-18	2018-19	2019-20	2020-21
Bauxite	8,966.37	8,987.99	8,511.77	8097.12
Aluminium Fluoride	18.96	21.2	19.44	17.82
Calcined Petroleum Coke	491.81	473.73	518.99	447.70
Caustic Soda	297.88	276.88	222.49	206.24
Pitch	109.01	105.74	113.05	100.69
Ammonia	47.04	77.11	56.10	1.02
Rock Phosphate	317.59	480.57	363.77	--
Copper Concentrate	1,278.20	1,134.83	1,037.30	770.9

Total Material Consumption ('000 MT)



Material Recycling

The inherent properties of Aluminium make it suitable for recycling and given the numerous methods available, it is possible to explore new avenues of recycling it. This provides us with many opportunities to adopt ways of recycling our Aluminium scrap or residue.

Along with Aluminium, we also find ways to utilise scrap from our Copper operations. During FY 2020-21, scrap Copper as a recycled input material constituted 4.06% of the total input materials for Copper production.

Recycled input material consumption for Aluminium and Copper businesses amounts to 4,921.6 MT and 31,287 MT respectively.

WATER MANAGEMENT

Water scarcity is seen as a major risk when it comes to consumption of natural resources. Since water is a critical raw material in our operations, it becomes a business imperative for us to optimise its consumption and move towards water security. Reduction of freshwater consumption, water recycling/reusing and water saving initiatives are part of our water management strategy. We also target to reduce specific water consumption by 5% per year a key sustainability objective at Hindalco.

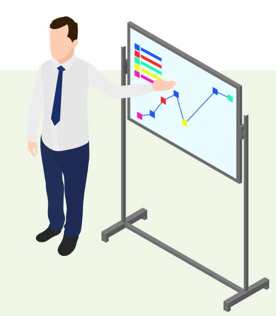
We continue to take initiatives to ensure water security for the business and the community at large. We conduct water risk assessment with the help of global tools such as World Business Council for Sustainable Development's India Water Tool (IWT) and the guidelines of the World Resources Institute (WRI) as well as Aqueduct assessment to identify physical risks associated with our locations.

A scenario analysis was conducted using IWT considering the variability in water availability due to occurrence of flood, draughts, declining levels of ground water etc. This analysis helped us conclude that the risk of seasonal variability was high for most of sites. We have thus undertaken adequate measures to mitigate the impact of this risk to our operations, such as construction of rainwater harvesting ponds, reservoirs, reuse of treated effluent, constitution of a monsoon management committee and emergency preparedness plans. During the reporting period, no water related incident occurred at any of our locations. We are committed to be water positive at all our mining locations and downstream operations by 2025.

We have set a target of 20% freshwater reduction by 2025, from a baseline of FY 2018-19 to minimise its use. Additionally, we have undertaken a target of reduced use of freshwater for each of our plants. We have developed a water balance for our respective plants to keep a track of our consumption at the plant level. To create awareness among our employees, we also conduct training on water positivity. Our efforts have led us to undertake major projects for water conservation and reduction and we have plans in place for the next 5 years. Currently, we have achieved a reduction of 48% in specific freshwater withdrawal in FY 2020-21 as compared to FY 2010-11. Recycled water consumption for our Aluminium and Copper business was 22.52% and 15.06% respectively for FY 2020-21. Among initiatives taken by our plant units, Belgavi is leading its way by reducing freshwater consumption by 40%, which has resulted in a saving of 5,30,000 m^3 of water in a year. Birla Copper unit, Dahej has installed a Tertiary Water Recycling Unit (TWRU), which will enable complete RO Reject recycling and fresh water saving of about 2,90,000m3/year. Our unit at Mouda has been successful in developing a rainwater harvesting structure with an additional capacity of 35,000 m^3, resulting in a total storage capacity of nearly 1,00,000 m^3 in the premises.

48%

Reduction in specific freshwater withdrawal achieved in FY 2020-21 as compared to FY 2010-11



TARGETS FOR FY 2024-25

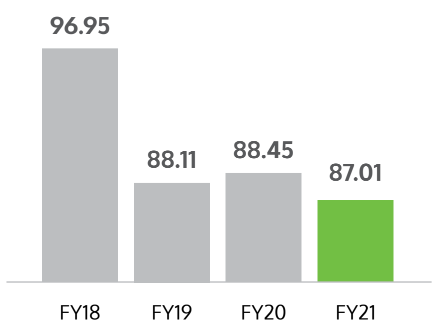
- 20% reduction in Specific Freshwater Consumption by FY 2024-25 from a FY 2018-19 baseline with an emphasis on recycled water content and rainwater harvesting
- ZLD status across all sites by FY 2024-25
- Achieve water positivity across mining and downstream verticals by FY 2024-25

Water Withdrawal

Our water demands are largely met through surface water (water sourced through a river) and we ensure that our water withdrawal does not exceed permissible limits. We also track and monitor our water withdrawal at local level through digital dashboards by Enablon and work towards enabling digital water meter escalations at the corporate level. During the reporting period, our water withdrawal value stood at 87.01 million m^3, including a negligible amount of groundwater. We witnessed a decline in our total water withdrawal for FY 2020-21 as compared to last year.

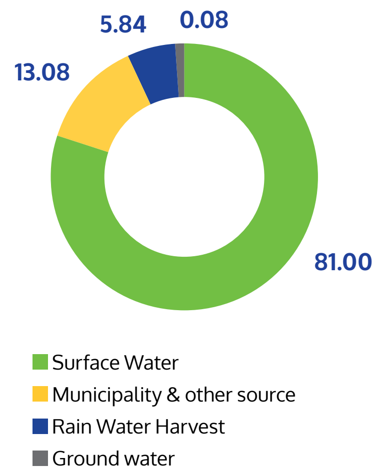
Water Withdrawal Trend

Water Withdrawal (Million m^3)



Water Sources

Water Withdrawal from Source (%)

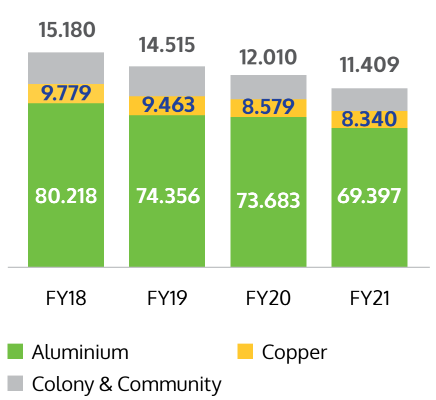


Water Consumption

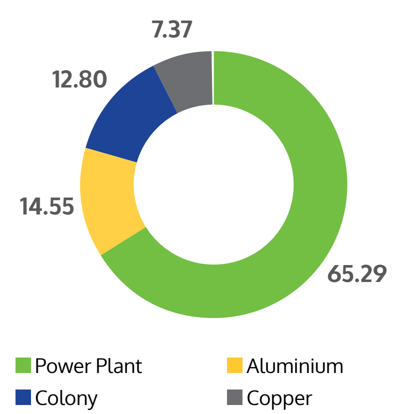
There are two major areas of water consumption viz. process and power generation. Out of the two, the latter accounts for the maximum consumption. We ensure that most of our plants, largely consisting of major production units, do not significantly impact the water sources and consume less than 2% of their total water storage capacity. We have an overall 26,89,507.629 cum. storage capacity near our plants.

We try to meet our water requirements through recycled water wherever feasible thereby reducing our freshwater consumption.

Water Consumption - Freshwater and Recycled water (Million m^3)



Water Consumption from Operations (%)



Total Freshwater Consumption (Aluminium, Copper and Mines) (million m^3)

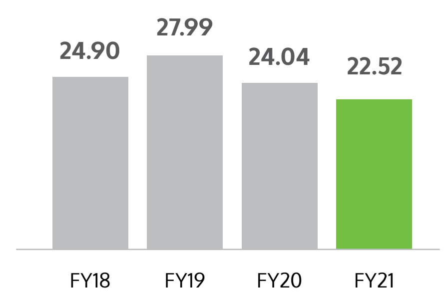
Type of source	2017-18	2018-19	2019-20	2020-21
Surface Water	65.74	55.60	61.11	49.29
Ground Water	0.00	0.08	0.07	0.05
Rainwater consumed	3.43	2.18	0.09	3.55
Municipal Water Supplies	0.11	6.20	5.60	7.96
Total Freshwater Consumption	69.27	64.05	66.86	60.85

Water Consumption at Novelis

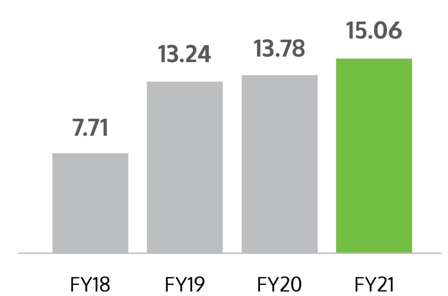
Type of source	Water Consumption (million m^3)
Ground Water	4.69
Surface Water	4.35
Water from Public Networks	3.17
Total Water Consumption	12.21

Water Recycling at Hindalco

Water Recycled - Aluminium (%)



Water Recycled - Copper (%)



A caustic pond at Utkal Alumina. This pond re-circulates used caustic liquor from the Bayer process

Water Intensity

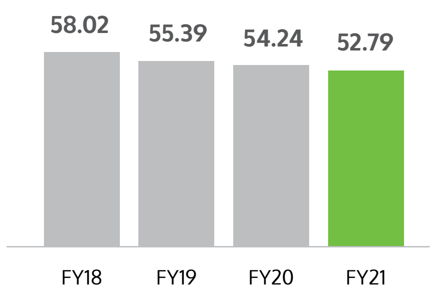
Our aim is to reduce specific freshwater consumption by 20% FY 2024-25 considering FY 2018-19 as the base year. The water intensity for our Aluminium operations is the combined impact of refining, smelting, rolling and extrusion operations indexed to the production of primary Aluminium in MT. The water intensity of our Aluminium operations (excluding power plants) during the reporting period was 9.86 m^3/MT; 1.92 MT of alumina is indexed to 1.0 MT of smelted Aluminium for refining.

4.67 M^3/MT

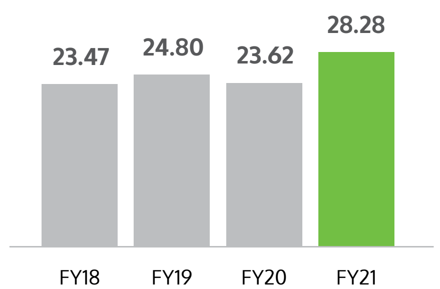
Specific water consumption by Novelis

Specific Freshwater Consumption (Aluminium and Copper)

Specific Fresh Water Consumption - Aluminium (m^3/MT)



Water Recycled - Copper (%)



Specific water consumption from our Novelis operations during the reporting period was 4.67 m^3/MT.

Tertiary Water Recycling Unit at Birla Copper, Dahej

TWRU Pump house

To advance its goal of becoming a ZLD unit by FY 2024-25, Birla Copper unit at Dahej constructed a Tertiary Water Recycling Unit (TWRU) with the following facilities:

- Sea Water Reverse Osmosis (SWRO): This unit treats the reject generated from the existing RO plant. Permeate from this unit is recycled and reject is fed into the evaporation unit.
- Mechanical Vapour Recompression (MVR) based evaporation unit: This unit consists of heat exchanger and crystalliser followed by centrifuge. From this unit, the liquid effluent is converted to condensate and recycled in the process.

This treatment results in water recovery which, in turn, helps reduce freshwater consumption. The plant is estimated to reduce consumption by about 2,92,000 m^3/year.

Reduction in Freshwater Consumption at Belagavi

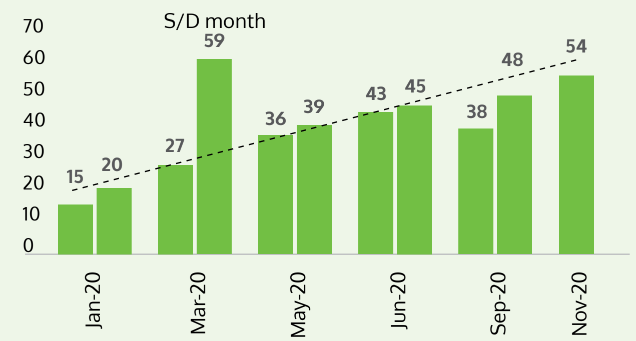
The refinery unit at Belagavi relied solely on the water supply from the corporation to meet its water demand for both industry as well as domestic purposes. The average freshwater consumption at the unit used to be in the range of 110 ML per month. This was the only source of water for the unit which in turn entirely relied on the rains in the catchment area. In the absence of supply from this source, refinery operations were impacted. Moreover, the unit also anticipated a rise in the existing price of water in future.

To reduce its freshwater consumption, a dedicated team at the unit implemented an innovative project to send the recycled and treated effluent back into the refinery process after treatment through ETP, thereby promoting Zero Liquid Discharge. To achieve this, a dedicated line treated water storage pond of 6,000 m^3 volume was constructed along with pumping facility. Also, a dedicated freshwater line was installed to meet the freshwater requirement of filter press.

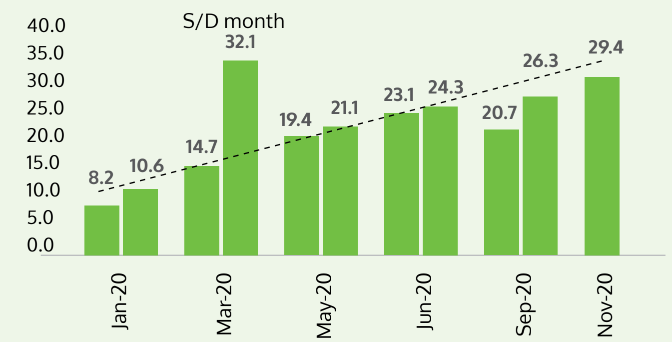
This resulted in a reduction of freshwater intake by approximately 40% bringing it down to 60-65 ML per month, resulting in a corresponding cost saving of ₹ 2.4 Crore per annum.

Freshwater consumption at Belagavi has come down by 40% per month

%Reduction in Fresh Water Consumption



Savings Realised, ₹ Lac/ month



Baseline consumption : 110 ML/month

Water Conservation at our Plants

Several initiatives have strengthened our water conservations efforts at our plants. Among them are the following:

Installation of water-less urinals	**Reduced water supply pressure for wash basins**	**Reduced flush tank water capacity**	**Maximisation of treated sewage water for gardening**

These initiatives have resulted in various water saving benefits at our locations. Going forward, we plan to implement these measures at all our sites and locations.

EFFLUENT MANAGEMENT

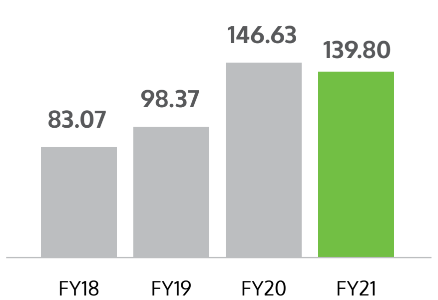
Effluents from our units are treated as per the guidelines prescribed by State Pollution Control Boards (SPCBs). We also make sure our effluent discharge does not significantly impact any water bodies in our vicinity.

At Dahej, phase 1 of installing ZLD units has been completed this year and we strive to cover at least 1 site every year till 2024 with a Capex expenditure of around ₹ 300 Crores. With these efforts, we plan to achieve the status of zero effluent discharge for all our sites by 2025.

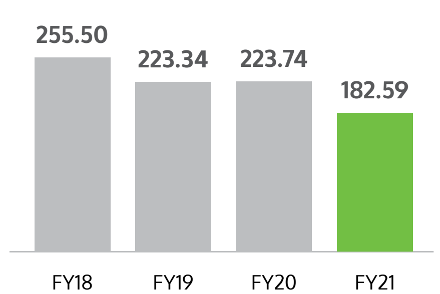
Regular monitoring of waste quality ensures that water quality parameters such as pH, Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), colour, heavy metals and Total Soluble Solids (TSS) are kept within permissible limits. Effluent discharges from our Aluminium and Copper operations stood at 1,39,801 m^3 and 1,82,589m^3 respectively during FY 2020-21. During COVID-19 pandemic restrictions, audits and CPCB inspections were conducted using digital and innovative tools such as, Realware and drone cameras.

Effluent Discharge FY 2020-21

Effluent Discharged - Aluminium (000' m^3)



Effluent Discharged - Copper (000' m3)



SOLID WASTE MANAGEMENT

We follow systematic waste management hierarchy at all our operating locations for effective waste utilisation and disposal.

Waste management task forces have been formed to streamline the process of waste management at the plant as well as at the corporate level. These task forces play an important role in the overall waste management approach at Hindalco. Development of a structured approach for waste reduction and minimisation is the key role of these task forces. Line managers have been appointed at each plant to take care of waste reduction and disposal techniques that are being followed at each level. Under the guidance of these line managers, each plant undertakes targets to reduce their waste generation and maximise waste utilisation, which further contributes to our 'Value from Waste' initiative. As part of this initiative, we aim for 100% waste utilisation by 2030. Regular reviews and timely interventions by our top management further helps us keep track of our performance. Quarterly and six-monthly reviews are conducted by our Chief Sustainability Officer (CSO) and followed by monthly reviews of our major waste initiatives by the MD.

80%

Of waste generated by Aluminium and Copper operations is recycled and reused

At each step, we make efforts to reuse and recycle the waste generated from our operations. Our waste is being utilised for various purposes after co-processing. A well-formulated approach is followed to dispose the rest of the waste ensuring full compliance to the applicable regulatory procedures. We take utmost care while handling hazardous waste and follow all safety guidelines for its treatment and disposal, thereby contributing to our goal of sustainable operations.

A fly ash rake is loaded at a Hindalco unit for transporting to a cement plant. Fly ash transfer by railway is easier on the environment

Currently, out of the total amount of waste generated from our Aluminium and Copper operations, 80% is recycled and reused and the rest 20% is being sent to landfills, storage facilities or for incineration. Also, the variable compensation of the Managing Director is linked to the target taken for utilisation of key wastes. We aim to reduce the amount of landfilling of waste and have set a target of zero waste to landfill by 2030.

Non-hazardous Waste

Our non-hazardous waste primarily consists of plastic waste, metallic and non-metallic scrap, e-waste, and municipal solid waste.

We have adopted a strategy for effective waste utilisation and elimination with a goal to reduce the impact on our environment. As part of the Extended Producer Responsibility (EPR) mandate, we have registered ourselves as a brand owner with Central Pollution Control Board (CPCB), which has led us to direct our plastic waste to various recyclers with the help of our authorised vendors.

These vendors collect the plastic waste centrally from five zones across India and send it to recycling units thereby ensuring compliance with the EPR mandate. This has resulted in recycling and reusing of 3,310 MT of waste during FY 2020-21 preventing it from being sent to the landfill.

We are committed to reducing the use of single use plastic (SUP) across all our operating locations and a circular to this effect has been issued by our MD for all our employees.

We have also asked our external vendors to minimise or stop the use of SUP. At present, three of our sites – Taloja, Mouda and Alupuram have completely stopped the use of SUP and have been certified by CII as SUP-free sites. Going forward we aim to make all our 12 sites free of SUP by 2023.

Three Sites Certified as Single Use Plastic-free by CII

In partnership with TERI, the Belagavi Team successfully re-vegetated the red mud dam at the location to reduce fugitive emissions and make it strong enough to support ecosystems

Our e-waste comprises electrical waste, IT waste and other metallic scrap which is sold to the vendors who are identified through auction. Apart from this, we have a central tie-up with some vendors to whom we send our e-waste for recycling and reusing.

The sources of our municipal solid waste are food facilities and domestic households. To utilise this waste, we have collaborated with Saahas Zero Waste, an organisation working towards waste management. With the help of this organisation, we have conducted audits at three of our sites – Muri, Belagavi and Utkal – following which we have collaborated with organisations in the vicinity to further find use of our generated waste. In this process, we ensure the involvement of our local communities to further create awareness among themselves.

Bauxite residue (red mud) and fly ash, categorised as bulk waste, is utilised by cement industries. Details of utilisation of these types of waste are provided in the subsequent sections.

The total waste generated during 2020-21 is 10.47 Million MT under the non-hazardous and bulk wastes[1] category. We have been successful in diverting 11.46 Million MT of waste from disposal during the reporting period.

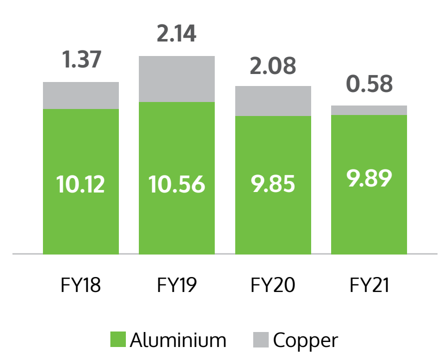
1 Bulk Wastes – Red Mud, Fly Ash, Aluminium Dross (from downstream operations), Copper Slag and phospho gypsum

Hindalco's waste goes to authorised recyclers if not recycled in-house.

11.46 MILLION MT

Of non-hazardous waste diverted from disposal

Waste Generated - Non Hazardous & Other Wastes (Million MT)



Non hazardous Waste (including Bulk waste) Diverted from Disposal

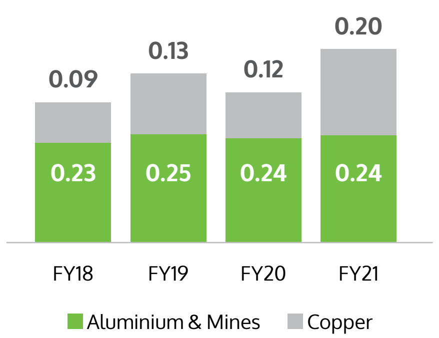
Type of Utilisation	Unit	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Recycled & Reused	Million MT	4.86	7.73	7.78	9.31
Landfill/ TSFD/ Stored in Approved Structures	Million MT	4.46	5.70	4.29	2.15
Total Waste	Million MT	9.31	13.43	12.07	11.46

Hazardous Waste

We are well aware of the implications of hazardous waste on health and safety and therefore adopt measures to handle this waste in an environmentally-responsible manner. This category of waste consists of spent pot lining, Aluminium dross, vanadium sludge, Copper slag and phospho-gypsum. Our goal is to reduce the volume of hazardous waste and maximise recycle and reuse of the waste in a sustainable way. We are also focusing on recovering metals such as Aluminium and Copper from the generated waste. Aluminium dross produced during Aluminium smelting is being used through setup of Dross Processing Unit to recover Aluminium. Also, 4.06% of total input materials used in Copper production comprises of recycled scrap Copper. Similarly, we have increased utilisation of wastes such as fly ash to 90%, Aluminium dross to 128%, and Copper slag to 101%. There was zero generation of Phosphogypsum in FY 2020-21.

Our total hazardous waste generated from our Aluminium and Copper operations during the reporting period is 0.44 Million MT, which we successfully diverted from going to the landfill.

Waste Generated - Hazardous (Million MT)



Hindalco has achieved 128% utilisation of dross in the reporting year

Waste Management at Novelis

Being the largest recycler of Aluminium in the world, Novelis has been instrumental in addressing the issues of waste management. During the reporting period, total waste generated at Novelis was 0.30 million MT, out of which 0.25 million MT is non-hazardous and 0.05 million MT is hazardous category of waste.

Out of the total hazardous waste generation, 0.045 million MT has been recycled which amounts to nearly 93% of the total hazardous waste. Similarly, for non-hazardous waste, 0.218 million MT of waste has been recycled, which forms 87% of the non-hazardous waste.

93%

Of the total hazardous waste generated by Novelis during FY 2020-21 has been recycled

Hazardous Waste Diverted from Disposal

Type of Waste	Unit	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Recycle/Reuse	Million MT	0.158	0.130	0.238	0.275
Secured Landfill/TSDF	Million MT	0.171	0.182	0.124	0.160
Incineration	Million MT	0.000	0.003	0.000	0.001
Total Waste	Million MT	0.329	0.315	0.362	0.436

TOWARDS CIRCULARITY

Being an industry leader, we are making use of all opportunities to integrate the principles of circular economy into our value chain and we are channelising our efforts to maximise use of resources and by-products and minimise wastage at each stage.

In the recent past, we have utilised our bulk waste such as bauxite residue and fly ash for industrial purposes and observed favourable results. A brief on the utilisation method and progress made till date is provided here.

Bauxite Residue (Red Mud) Utilisation

To bring about a transformational change in the Aluminium industry, we aim to set a benchmark through our sustainable solutions on red mud utilisation. Filtration technology helps reduce the moisture content in the red mud upto 20 to 25% by making use of pressure filters. To utilise the waste, we have collaborated with top cement industries. We send our red mud to nearly 40 cement plants in India, which makes us an industry leader for large-scale utilisation of red mud. As compared to last year, we have increased our red mud utilisation from 27% to 62% for all sites. Also, three of our sites have achieved 100% utilisation of red mud during the reporting period. We also take special care of storage, stabilisation, and utilisation processes of red mud at all our sites. A special task force is deployed at each site for this purpose, which follows a standard operating procedures (SOP) for the avoidance of any untoward incidents at our sites.

Fly Ash Utilisation

For proper management of our fly ash generation at the sites, we have adopted a management strategy that helps us streamline the process. Led by our five working groups, various processes such as storage, transportation, utilisation, and emergency preparedness plan formulation are carried out. For fly ash management, site-specific SOPs have been drafted to improve the process further.

We have been successful in utilising 90% of our fly ash during FY 2020-21 for useful applications, such as in cement manufacturing, construction industry, brick manufacturing, backfilling of low-lying areas and the rest 10% is stored in approved structures.

62%

Utilisation of red mud achieved in FY 2020-21 against 27% last year. 3 out of 4 refineries have achieved 100% utilisation of red mud during the reporting period

A recycling centre at Novelis, South Korea. The company has increased closed-loop recycling to 59% thereby reducing GHG emissions and transportation cost

Recycling at Novelis

Leading our efforts on the global front, Novelis has been successful in reaching a recycling capacity of 2.5 million MT. Novelis is a leading global buyer and recycler of used beverage cans and has recycled more than 74 billion cans this year. With its efficient recycling capability, it can recycle a beverage can and produce a new can in approximately 60 days. The closed-loop recycling systems enable it to re-produce its products through the Aluminium scrap procured through the customer network. Such a system has led to reduced GHG emissions, lower cost of transporartion and a secure supply chain. To spread awareness about recycling of the cans, the Can Crush Campaign has been initiated by Novelis.

Sustainable Mining

We recognise the adverse impact that our mining operations can have on the environment and the life surrounding our mining areas. In order to reduce this impact, we have adopted a sustainable mining framework that takes into considerations various aspects related to the economy, environment and the society while driving these mining operations.

Our principle of environmental sustainability is centred around the idea of reducing our environmental footprint at each stage of our operations. Given the inherent nature of mining operations, it is challenging to achieve a sustainable way of conducting the mining. The purpose of our sustainable mining framework is to achieve operational excellence and secure our economic interests without compromising environment, safety, and social concerns.

This approach includes adoption of best-in-class sustainable practices guided by our Sustainable Mining Charter. This charter steers our efforts towards carrying out our mining operations in a responsible way while ensuring overall socioeconomic development.

60 DAYS

The time it takes for Novelis to recycle a Beverage Can and produce a new one

The approach is based on these three prime objectives:

- To move beyond regulatory compliance for creating positive impact on the environment
- To enhance resilience and prosperity of the communities in the mining regions
- To build profitable and responsible mining operations.

Aligned with NITI Aayog's 'Strategy for New India @75', which emphasises on systematic and sustainable growth of the mining and minerals sector, we have identified seven thematic areas to reach our ultimate goal of sustainable mining.

To work across these thematic areas, we undertake several initiatives as part of our sustainable mining operations. Use of advanced mining equipment such as X-centric ripper help us reduce our dust emissions and also the noise pollution resulting from drilling and blast-free features of functioning. We make use of solar energy for ancillary purposes wherever feasible.

GOALS OF SUSTAINABLE MINING

Sustainable Land Use | **Emission Reduction** | **Local Economic Development**

BIODIVERSITY MANAGEMENT

Water Stewardship | **Waste Management** | **Health & Safety**

Further, initiatives such as undertaking tree plantation to prevent soil erosion, rainwater harvesting, and reduction of groundwater consumption are leading us towards our goal of sustainable mining operations. We also make efforts to reduce the impact of our operations on our communities. We follow the National Rehabilitation and Resettlement Policy, 2007 to help the communities affected.

Biodiversity management is an important aspect of mining operations and to further preserve our ecosystem, we conduct biodiversity assessment and undertake biodiversity conservation initiatives at various mines to nurture long-term sustainable growth. Details related to biodiversity management are provided in the separate section on Biodiversity management.

Restoration and reclamation of the mined-out area is our responsibility and for this purpose we take measures such as utilisation of topsoil in reclaimed areas, formation of slope and drainage system and plantation of native species of plants. We have an environment management cell in place to lead our efforts towards ecosystem conservation.

Bar headed geese

Mining Area Details

Parameter	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Total Mining Area Leased (Operational) (Ha)	10,159	9,977	9,278	9133
Total Area Mined Out (Ha)	159	155	132	80
Total Area Reclaimed (Ha)	127	156	112	86
Total Area Rehabilitated (Ha)	118	94	102	57

Bird Diversity at Kathautia Coal Mines

Our Kathautia open cast mine at Jharkhand is home to various faunal species comprising birds, butterflies and mammals. The mine is situated in Palmau district of Chotanagpur Plateau, 12 km away towards the north of district headquarters, Medininagar on the banks of Koel river.

The mine hosts varied habitats due to its geographical features which comprises Pits A, B, C and D and Narayan Ahara. These pits are water reservoirs which are 30-50 meters deep created after the extraction of coal. Narayan Ahara is a shallow water body with accessible vegetation, a feeding source for birds. The remaining area is a mixture of plantation, scrubland, shrubland, dry grassland and rocky land. These habitats are surrounded by cultivated land and dry river- bed of North Koel. The habitats of the mine hosts 50 species of birds including 5 migratory species such as, Bar-Headed Goose, Common Chiffchaff and so on. There is also presence of 19 butterfly species such as Common Lascar as well as 4 mammalian species. The mine is a preferred site for the Jackal, one of the dwelling mammalian species. This water body also hosts a habitat for resident water birds such as Lesser-whistling Duck, Black-crowned Night Heron, Kingfishers, Little Grebs. We are tracking the regional bio-diversity data especially in Pit D and Narayan Ahara by seasonal surveys and noting changes in the patterns observed to better direct our efforts.

Biodiversity Initiative at Muri

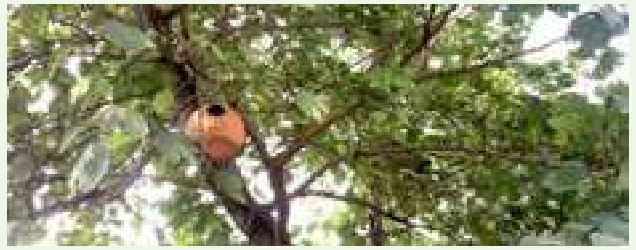
The pond in Muri's Residential Colony is inhabited by 15 swans and 8 duck species, playing a crucial role in keeping our ecosystems healthy and diverse. A swan will breathe in the air, extract oxygen from it and release back into the atmosphere carbon dioxide when breathing out. The carbon dioxide is then taken back up by the plants, the plants are eaten by the swans, the food then passes through their bodies and gets deposited back to the ground as faeces. The faeces then provide food for other living organisms and the cycle continues. The swans eat the water crow foot and the density of the water crow foot decreases.

The reduced density of the water crow foot encourages more enhanced growth of the plant during the following growing season. Many species of trees like Mango, Indian Gooseberry, Litchi, Jackfruit, Jamun are also planted to sink pollutants like particulate emission, SO_2, CO_2.

Bird Conservation Initiative at Aditya Aluminium

Aditya Aluminium at Lapanga in Sambalpur district of Odisha. We have conducted comprehensive studies with IUCN for the region and have started implementing the devised Biodiversity Management Plan. We have started developing threatened species like Dalbergia latifolia in our own nursery. At present, we have nearly 1000 species. In order to develop Butterfly conservation, colourful flower, foliate and bracts shrubs are developed inhouse, including Bougainvillea (200), Hibiscus (1000), Ixora (500), Aralia (200), Tecoma (100).

For birds' conservation, we developed 25 earthen birds' nest. Reptile conservation programme: Stone heaps of 5 m diameter in township and ash pond is under progress.

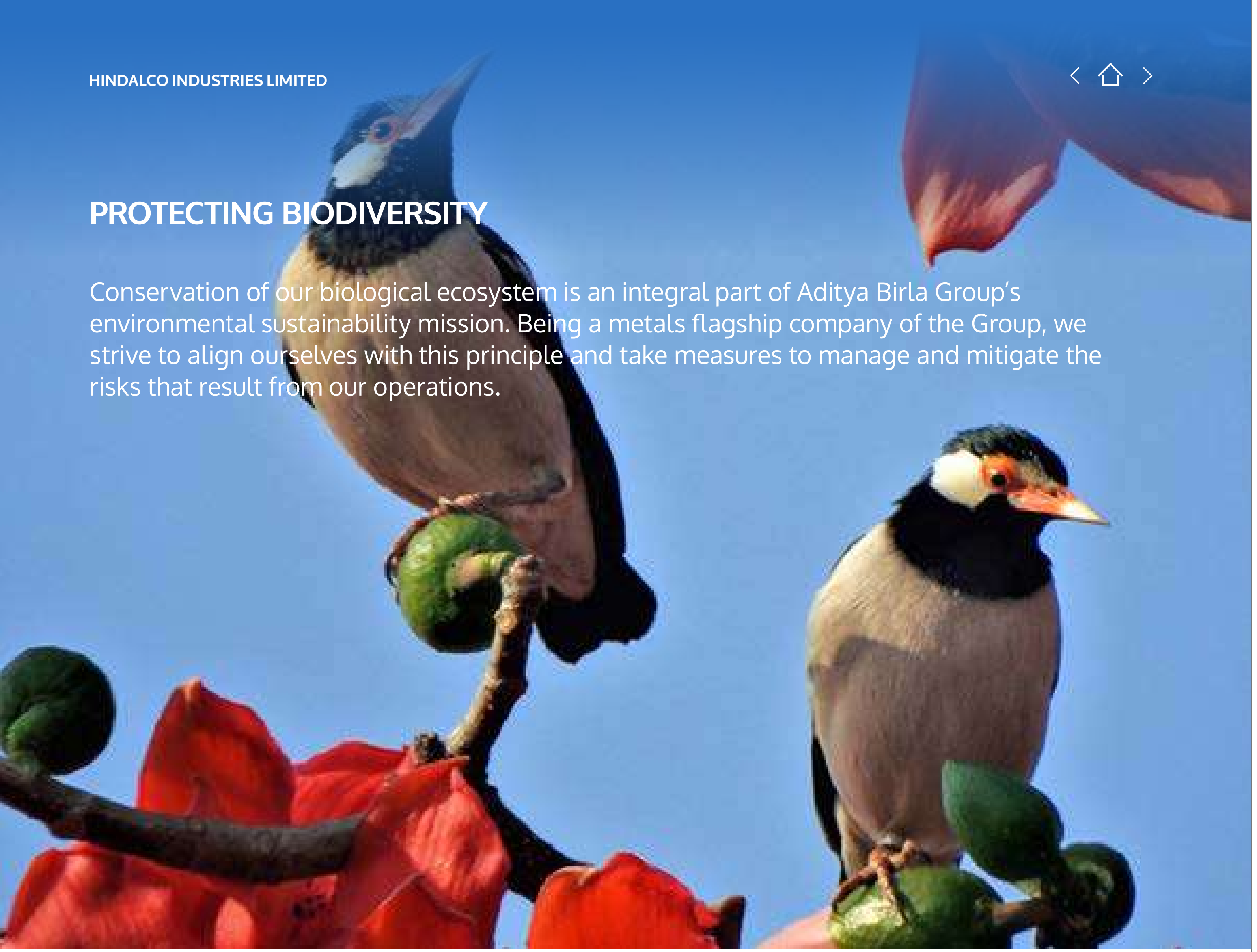


Mining Charter

The metals and mining sector plays an important role in India's development and holds good promise for future growth. The primary focus for this growth lies in domestic production improvement and rise in per capita income and ensuring that mining should adopt sustainable practices without affecting the environment and mining communities. For creating sustainable value, we have developed the sustainable mining charter which would help us to integrate sustainability in our mining operations.

Based on the systems thinking approach, the charter will help us in creating a positive impact on society and environment with a robust governance mechanism. Our governance mechanism will enable us in enhancing our efficiency, participation, transparency, accountability and continuous improvement. We have also developed our sustainability goals under various thematic areas such as sustainable land-use, water use, emissions, waste. We firmly believe that innovations and continuous improvement will help us in achieving the United Nations Sustainable Development Goals (UN SDGs). To closely track the impacts of the goals, we have developed our mine level implementation roadmap catering to mine specific requirements.

Moving ahead, we will ensure the continuous improvement of the charter and communicate our learnings with the broader mining community and develop an India centric approach to sustainable mining.



PROTECTING BIODIVERSITY

Conservation of our biological ecosystem is an integral part of Aditya Birla Group's environmental sustainability mission. Being a metals flagship company of the Group, we strive to align ourselves with this principle and take measures to manage and mitigate the risks that result from our operations.

Adhering to the Group-wide Corporate Biodiversity Policy and Technical Standard (TS) that was launched in 2018, we follow an approach of understanding, quantifying, and mitigating the biodiversity risks related to our business units.

The group level biodiversity policy and technical standards prescribes to undertake a biodiversity screening at all of our operational sites. We conducted the biodiversity screening at all the sites and found that there are only two operational sites close to the protected areas or high biodiversity value. These sites are Aditya Aluminium and Hirakud Complex.

Biodiversity screening activity helps us in understanding the site biodiversity sensitivity at our operational locations. Against it we have defined the operations within the organisation as high (mining), medium (smelter, power plant, refinery) and low impacts (rolling mills and other downstream operations). Mining operations especially open cast mining is considered a high impact operation. The operational sites having high and medium impacts are found to be biodiversity sensitive locations. Our focus is on the high and medium priority operational sites as part of our long-term action plans. We are in the process of understanding the biodiversity risks and preparing BMPs for these sites. Our team has set a target of developing BMPs for three of our sites every year.

In an attempt to take constructive action on biodiversity conservation and management at the grassroots, we conducted a comprehensive biodiversity assessment at five of our high priority sites – Utkal Alumina Refinery, Aditya Aluminium, Baphlimali Bauxite Mines and Gare Palma Coal Mine for effective implementation of the biodiversity policy. Also, we have biodiversity studies and wild life conservation plans being made at eight of our priority mine sites. To identify high priority sites, we use globally recognised tools such as the Integrated Biodiversity Assessment Tool (IBAT), Ecosystem Services Review (ESR), and Business Ecosystems Training (BET) which also help us at the implementation stage. We have conducted a proximity analysis of all our plants and mines at Hindalco (i.e. 48 sites) by using the integrated Biodiversity Assessment Tool (IBAT).

The IBAT identifies the rare, endangered and threatened (RET) flora and fauna found near the sites and defines a category of site importance. On ground assessments are considered at sites in the red category. Red category includes sites where operation impacts are high (i.e. mines, smelter plants, power plants or any place where fuel is burned). If any Threatened Species or Protected Area or Key Biodiversity Area (KBA) are found in a 10 km radius of the site, biodiversity management plan shall be developed and implemented.

Out of 48 sites assessed, we have identified 9 sites as high priority sites and 23 sites having medium exposure to proximity of critical biodiversity. Out of 33 total mines, 11 mines are non-operational. All 15 manufacturing sites are operational. The locations are compliant to all legal requirements including EIA.

Among the aspects taken into consideration while prioritising the high priority sites are presence of protected areas, key biodiversity areas and threatened species, as per the International Union for Conservation of Nature (IUCN) Red List. Biodiversity assessments carried out at these sites helped us identify the risks and formulate mitigation measures. This led us to prepare Biodiversity Management Plans (BMPs) for these sites in collaboration with IUCN. Based on priority, 3 sites will be selected every year to develop site specific Biodiversity Management Plan. We are aiming to equip all priority sites with BMP by 2030. In addition to addressing our biodiversity concerns, this engagement also led us to undertake other activities, such as capacity building workshop for our staff at the plant as well as corporate level and outreach of our project outcomes among communities.

This exercise helped us in recognising the issues pertaining to biodiversity management at Hindalco resulting in the development of a goal of No Net Loss (NNL) of biodiversity by 2050 in line with the Group's corporate level policy. Additionally, we comply with applicable laws and regulations pertaining to forest conservation (Compensatory Afforestation Fund Act 2016 and Forest Conservation Act 1980) in our efforts to mitigate the impact of our operations. Based on this vision, we have divided our biodiversity plan into long-term actions and short-terms actions. Our long-term actions include planning, budgeting, and executing the actions over the next few years whereas the short-term actions are about changing the on-going practices in line with industry best practices to further contribute to our biodiversity goals.

Our short-term actions focus on initiatives such as green belt development and plantation practices. Our team of experts has conducted short-term assessments to design a green belt at our sites with a special focus on biodiversity enhancement. We have taken scientific approach to biodiversity conservation and management. Any restoration activity – whether rehabilitation in mines or green belt development in plants are designed to achieve the targeted habitat. For example, ash mount restoration in Hirakud complex targets to develop forest habitat. Similarly, we have developed green belt plantation plans for all of our locations.

Green Belt Development

Green belt covers can act as carbon sinks and help offset our carbon emissions. It is important for both our biological ecosystem as well as health of our people. We have thus been increasing green coverage at our geographies.

We have taken steps to integrate biodiversity concerns with the ongoing plantation activities at our operational plants. In line with the SOP developed for plantation activities, each site has undertaken a self-assessment against the SOP and identified areas for improvement, which includes enhancement of native vegetation.

Pre-Plantation

- **Site selection**
- **Site Preparation**
- **Species Selection**

During Plantation

- **Soil Mixture**
- **Tree Guarding**
- **Watering**

Post-Plantation

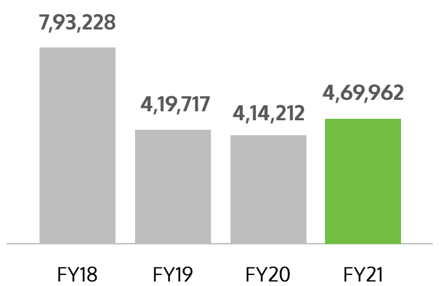
- **Regular Watering**
- **Pest Control**
- **Pruning**
- **After Care**

With the help of biological experts, we are creating a green belt development plan in the absence of Biodiversity Management Plan (BMP) for ten of our operational plants. These green belt development plans have details such as a comprehensive list of species, area under green belt and proposed green belt area for every site Inclusive of pre-industrial species data from the old forest department divisional working plans (1985 or before).

To restore the green cover, it is important to plant native species for which climatic conditions and soil type are favourable. Hence we identify native plant species which would result in a sustainable green cover with high survival rates. Our green belt spans across 4672.2 acres at present which houses nearly 31.5 Lakh trees, with survival rate of approximately 82%.

Mapping of existing and proposed green belt areas for the Mahan site

Tree Plantation Trend



Plantation Initiative at Kathautia

Our Kathautia open cast mine at Jharkhand has a production capacity of 0.8 Million tons per annum and a total lease area of 679.93 Ha. Mining on such a large area can have adverse impact on the landscape and plant growth in the area. To address this issue, our team has undertaken planting of nearly 1.1 Lakh saplings with a survival rate of 94.5%. This survival rate could be achieved because of the following steps:

- Organic mulching: This is process of spreading a mixture of dry straw, leaves, dry grass and so on into thala (shallow removing soil around the plants) which improves the survival of plants. This helps in water conservation as it prevents evaporation of water from the soil. It also helps to keep insects and pests away from the plants and helps microbes to grow.
- Drip Irrigation: For drip irrigation, a channel for continuous water supply to plants at different places was provided with the help of a tank of a capacity of 20 KL. Water from Narayanhra reservoir is stored in the tank.

Development of Potential Bio-fertiliser Consortia at Coal mines

Microbes play an important role in the biodegradation of wastes as well as pesticides. These microbes also make enzymes that are used in food and medical industries. One such microbe known as mycorrhizal fungi improves seedling growth and survival of plants by enhancing the uptake of nutrients and water thereby increasing root life span and influencing the survival of plants in new and reclaimed sites.

In order to ensure this, we have undertaken a project to investigate the status of beneficial microbes such as Vesicular Arbuscular Mycorrhizal (VAM) fungi and Plant Growth Promoting Rhizobacteria (PGPR) in the core and buffer zone areas of our coal and bauxite mines in the states of Chhattisgarh and Jharkhand. Samples were collected from three different zones of our mines – active dump, inactive dump and proposed mining area (natural vegetation). These samples will be further analysed in the laboratory. We also plan to develop potential beneficial microbial consortia for quality seedling production for reclamation and rehabilitation of overburden dump areas of the coal mines.

Through this process, nursery experiments will be conducted by isolating different bio-fertilisers with various tree species for quality seedling production and identifying the most beneficial bio-fertiliser consortia for reclaiming and rehabilitating inactive dump areas. Additionally, training cum demonstration will be provided on VAM bio-fertiliser production to the officials and other stakeholders.

Soil sample collection from different zones

Development of a Bio Park at Bagru Mines, Jharkhand

A 5.5-hectare area of land has been restored at Bagru mines and a bio-park has been developed with themed garden zones, including a Butterfly Garden and Spice Garden. This park also provides an opportunity to engage with the surrounding local community. A bamboo pavilion on the site acts as a hub and multi-function space for group meetings, and community gatherings.

This park also houses a commercial fishery, duck farm and orchard in which the local community is actively involved. The fishery also serves as a livelihood source for the locals as the yield from the fishery is sold in the local market. The fishery pond also houses a duck house for 150 birds. This sits on a raised platform allowing the duck waste to be utilised by the fish.

The orchard aids in increasing the vegetation cover over the reclaimed land as part of the mine closure plan and also provides crops for the local communities. The park includes over 1,000 sq m of strawberries, 2 ha of pears and 0.43 ha of cashew trees. New saplings are brought in annually to grow the orchard, increase yields, and diversify the crop.

SOCIAL AND RELATIONSHIP CAPITAL

Fostering Trust and Confidence

As one of the largest non-ferrous metals companies in the world, our value chain spreads across geographies, interfacing with various stakeholders. We have a robust stakeholder engagement mechanism wherein we engage with communities, customers and supply chain partners to build strong, transparent and trust-based relationships with them.

Contribution to SDGs

Interlinkages with Material Topics and other Capitals

Material Topics	Capitals Connected
Community Relations	Financial Capital
Supply Chain Transformation	Human Capital
	Manufactured Capital

Alignment with Strategic Priorities

- SP-2: Strong ESG commitment

We strive to contribute towards social and economic development of communities in which we operate. Our focus is also on enhancing India's human development index through sustainable upliftment of weaker sections of society. This forms the basis of choosing key focus areas for our community development initiatives.

We engage with our customers on a regular basis to understand their requirements. This helps us in improving products and processes for enhanced customer satisfaction. We also aim at developing safe and sustainable products. Our approach with focus on operating our supply chain in a responsible manner has helped us in managing a complex supply chain involving 10,601 partners in a sustainable way. We closely monitor various aspects including human rights, environmental impact, and safety across the supply chain.

We value our relationships with stakeholders for their contribution in creating a long-term value aiming at sustainable business and prosperity. Following are the key focus areas which showcase our continuous momentum towards our stakeholders.

HIGHLIGHTS

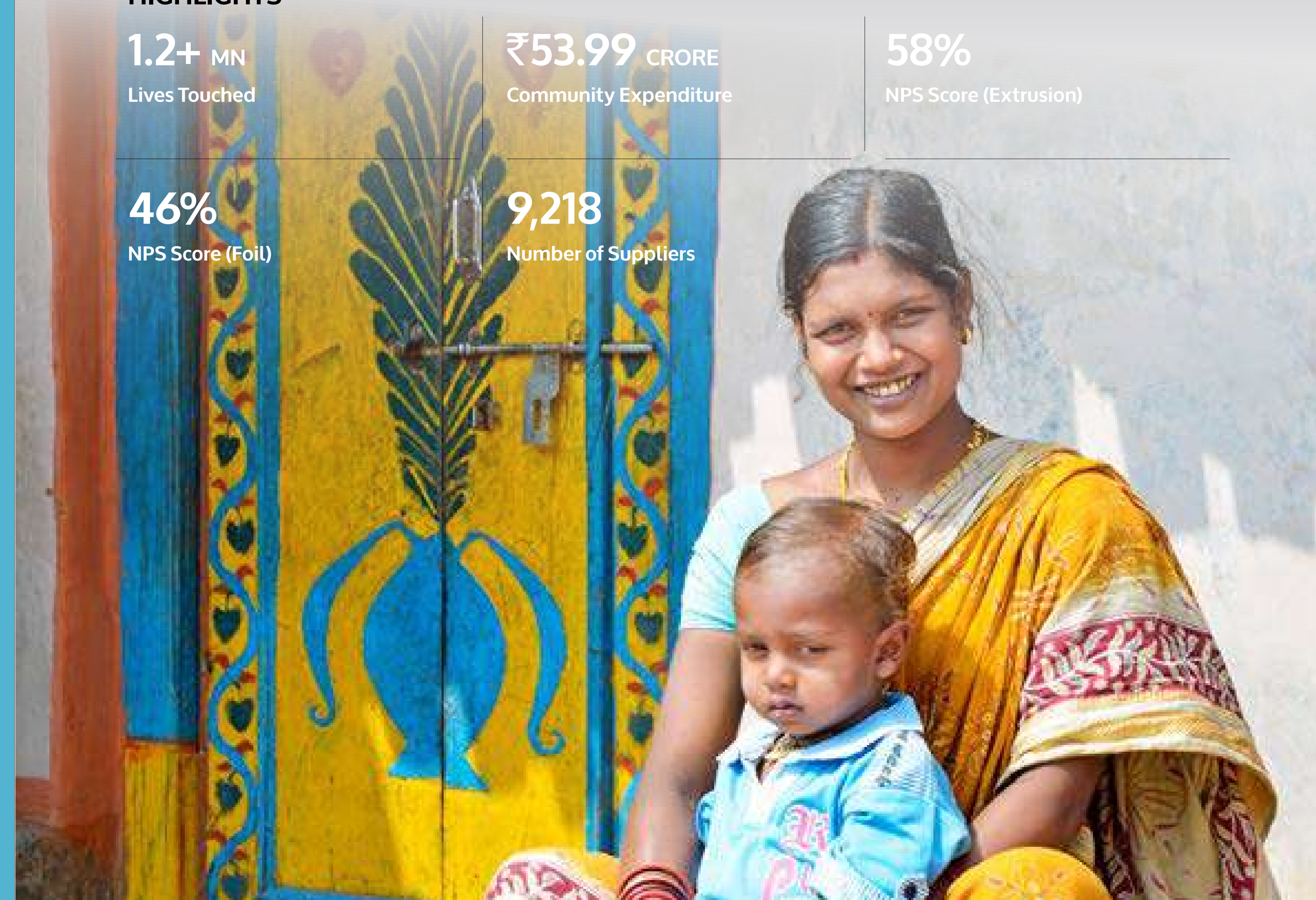
1.2+ MN
Lives Touched

₹53.99 CRORE
Community Expenditure

58%
NPS Score (Extrusion)

46%
NPS Score (Foil)

9,218
Number of Suppliers



Focus Areas

Community Initiative	Customer Connect	Responsible Procurement

Community Development Initiatives

We believe community development is pivotal to responsible and sustainable business growth. Therefore, our CSR strategy adopts programmes aimed at long-term empowerment of communities through sustainable livelihood, education, healthcare, infrastructure development and social reforms, contributing to the sustainable development goals (SDGs). Our CSR programmes are in line with business objectives and strategy is guided from the top, wherein the Board of Directors takes responsibility of the CSR initiatives. Programs are aimed at metrics with a bottom-line impact such as increase in literacy rate, reduced mortality rate, and employment generation.

At our India operations, there are 105 project activities for 24 projects based on 5 focus areas. These development projects have undergone the process of community consultation. Additionally, we have a total of 47 current production assets which have undergone our community consultation process.

Hindalco's Community Consultation Activity

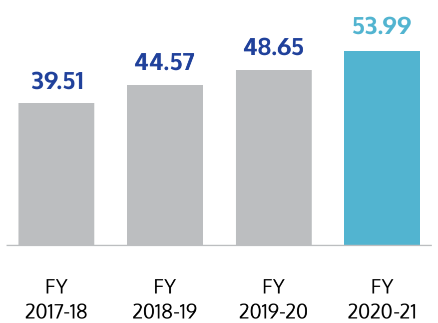
- Education
- Healthcare
- Social Reforms
- Sustainable Livelihood
- Infrastructure

We have a structured Corporate Social Responsibility Policy, which supports our community stewardship approach. The policy acts as a guiding principle to engage with our communities regularly. We conduct baseline studies to assess the needs of our communities. This study is based on various parameters, such as health indicators, literacy levels, sustainable livelihood processes, population data - below and above the poverty line, and the state of infrastructure, among others. We have designed and implemented various development programmes and projects based on the results of this study. To make these projects self-sustaining, we conduct capacity-building sessions for the communities and associated stakeholders.

Community engagement process

Consultation with Stakeholders → Need Assessment through Participatory Rural Appraisal → Resource Allocation and Detailed Planning → Stakeholder Engagement and Project implementation → Project Monitoring and Impact Assessment

Community Expenditure (₹ Cr)



Our community expenditure for our India operations is ₹ 53.99 Cr. Further, our community expenditure for our Novelis operations has been provided below.

Type of Contribution	Total amount (in USD)
Cash contribution	3,778,338.99
Time: employee volunteering during paid working hours	424,315.8
In-kind giving: product or services donations, projects/ partnerships or similar	471,000
Management overheads	150,000

The percentage of total cost for charitable donations was 70% for Novelis whereas the percentage for total cost for community investment and commercial initiatives was 20% and 10% respectively.

OUR INITIATIVES

Education

Education is key to unlock the doors of opportunity and a lamp of wisdom to erase the darkness of poverty, and hunger. At Hindalco we believe in the power of knowledge and promote a learning environment for all through our initiatives. Pre-school education, educational support program, vocational and technical education training and infrastructure of the school are some of the key areas that we focus on as part of our education initiatives.

Through our education initiative we have supported 764 students with 15 Anganwadis and 837 students with 30 Balwadis. Under the Integrated Child Development Scheme (ICDS) we have reached out to 64 malnourished children and helped nurture them into healthy children. We have a total of 5360 rural students in 10 of our Aditya Birla Public School and 1319 students enrolled at 7 of our Aditya Birla Vidya Mandirs that we run. This year we distributed educational material, sports, and dress material to 1881 students. We have offered financial support and scholarships to 126 students. To meet the shortage of teachers in the rural areas in government primary and secondary schools, we have sponsored 29 teachers. We have constructed 6 schools and repaired 13 school buildings. At several schools, sanitation facilities were constructed and drinking water facilities were set up.

An impact assessment study of CSR activities of Utkal Alumina International Ltd. carried out by NABARD Consultancy Services during FY 2018-19 for our education sector initiatives indicated the following impact. We could not carry out the impact assessment this year due to COVID-19.

5,360

Rural students are currently enrolled in 10 Aditya Birla Public schools

Key Performance Indicator	Unit	Baseline (FY 2010-11)	Impact (FY 2018-21)
Total literacy rate	%	37.74*	51.56**
Women literacy rate	%	22.51*	36.51**
School enrolment	%	92.06***	97.85**
School attendance	%	65	100#
School dropouts	%	4.75	2.65#

* Indicates 2011 census data.
** Indicates NABCONs study data, 2018
*** Indicates Child Tracking System Data of the operational Gram Panchayats, Odisha Primary Education Programme Authority, Government of Odisha, Bhubaneswar, 2009-10.
# Impact assessment study conducted by Xavier Institute of Social services Ranchi at Dahej in 2016-17

ABPS Rayagada, Odisha

Healthcare

Healthcare is the necessity and healthy community is the reflection of our strength. Healthcare is our key focus area and during the pandemic and nationwide health emergency, we stood as a strong and flexible supporting partner to assist people in providing the best possible medical support.

Preventive Health Care Program	**Curative Health care program**	**Mother and Child Care**	**Health care Infrastructure Program**	**Jeevan Mitra Seva Yojana (Ambulance facility)**

More than 47,000 beneficiaries were reported through more than 1450 healthcare camps. In addition, we also organised 765 health awareness and nutrition awareness camps. Our healthcare projects include eye camps, dental check-ups, tuberculosis camps and general health counselling. Our touch points are in excess of 10,000 families. We organised 2 eye camps and operated 157 Intraocular lens (IOL). Through this camp, 368 prospect cases were attended. We also treated 57 cases of Tuberculosis. 23 seasonal disease (malaria and Diahorrea) camps were organised wherein 5890 cases were attended. Additionally, 2000 mosquito nets were also distributed among the people.

We run 4 Hospitals, 19 dispensaries and clinics and 26 family welfare centres. Moreover, 1,52,265 patients benefitted through these hospitals, dispensaries, clinics and family welfare centres. We were also able to impact 7250 mothers through our mother and child healthcare support. 1630 expecting mothers were motivated and facilitated for institutional delivery through our family Welfare Centre. Around 1,64,127 children were immunised against polio and 11,596 vaccinated against other life killing diseases.

This year we installed 24 handpumps and repaired 264 handpumps and dug wells. Pipelines and borewells that provide access to water benefitted 20 of our villages. Up until now, we have set up 23 RO plants in our villages.

Social Reforms

This has been our unrelenting battle for decades. We are engaged in 10 states where our CSR work has made a difference. The percentage of below poverty line families has dropped significantly. We organised 325 social awareness camps on various topics which saw a participation of more than 14,000 people. We created awareness against child labour, child marriage, women abuse, dowry and illiteracy. We extended our support by conducting and participating in cultural programmes and sporting events.

We have also focused on training SHG members on managerial, conceptual, financial literacy and various income generation methods. A special mention must be made of the "Kosala Livelihood and Social Foundation", a not-for-profit company. This subsidiary of Hindalco has been spawned to mentor women in the art of making textiles including sarees from Kosa silk, thereby, reviving the ancient Kosa silk art form of Chhattisgarh.

Sustainable Livelihood

We acknowledge our responsibility for the local communities and are regularly working to make them self-reliant through our efforts. The livelihoods of our communities mainly depend on farming and agricultural activities. We make them aware about modern techniques of farming. We foster collective growth of these farmer groups by conducting farmer camps, where they share their knowledge on procurement of inputs and economies of scale. The graphic below shows what is covered in the training program. These trainings build capacity of the community members and provide them with a source of livelihood. During the reporting period, we organised trainings for more than 1783 youths We also provided Technical Skill Training to 2028 youths. We also supported 1976 SHGs and its 25150 members with financial literacy, managerial and conceptual training to start businesses on their own.

Motor Repairing	**Shoemaking**	**Carpentry**	**Poultry**
Bag making	**Electronic Goods Repairing**	**Sanitary napkin-making**	

In addition, 6706 farmers were provided agriculture tools, seeds, fertilisers and insecticides. Consequently, we organised 369 camps which were attended by 9700 farmers. As many as 22,302 cattle were immunised in veterinary camps. Out of these, 592 cattle were artificially inseminated and 2754 cattle were treated.

Infrastructure

Infrastructure development plays a pivotal role in the Sustainable Development of society and community, which is why it is one of our key focus areas. Proper road connectivity and infrastructural amenities have been perennial concerns for the rural population. The graphic below shows where we pitch in to develop infrastructure:

Building Village Approach Roads	**Culverts**	**Panchayat Bhawan**	**Ponds**
Check Dams	**Bus Stop**	**Rural House**	

This year we constructed 20 roads and repaired 17 roads benefitting the lives of more than 70,000 people. Ensuring water positivity is one of the most important tasks before us. Water conservation and water harvesting structures are our mainstay and so far so far we have developed 46 rain water harvesting structures. Towards better irrigation and infrastructure development, we built 10 check dams, repaired 12 existing ones, excavated 16 ponds and constructed 2 culverts. There are nearly 64 farmer clubs that are functional at our Company. Towards better ecology, we sponsored 93 vermin compost tanks to provide manure and encourage organic farming.

Project Swawlambh
CSR Initiative for Skill Development and Livelihood Generation

To empower local women by providing livelihood generation skills by imparting sewing training in Ambheta Village, Hindalco has started sewing classes for the women of Dahej village to enhance their sewing skills. Through this program, a six months training program was designed and provided to the women on sewing skills with the theoretical and practical exposure with an aim to empower women.

The progress was monitored by a professional trainer. 1395 women from 8 villages have received training under the initiative and 100 women have started earning a living by stitching garments.

Due to the sewing training Neelamben from Ambheta village who was earlier dependent on their families for their financial needs have now become self-reliant and more confident. During the COVID-19 lockdown, Neelamben supported her family through her skills and livelihood which was a proud moment for her.

Project Sugandha
The Aroma of Lemon Grass Oil

Enhancement of livelihoods of 250 farmers in a sustainable manner by introducing lemon grass cultivation along with its oil extraction.

This is an initiative towards livelihood generation in villages in rural and hilly areas around Utkal Alumina International Limited (UAIL) that focusses on educating the farmers and creating awareness on economic agricultural practice of lemon grass. In the year 2019-20, Project Sugandha was introduced with the unique idea of an alternative and attractive livelihood for the farmers by cultivating lemon grass. The aim is to introduce an invasive economic crop pattern in the traditional agricultural practice which suits the climatic and edaphic factors of the area.

We arranged a number of visits to the lemon grass cultivated fields along with demonstration of the crop cultivation at Andirakanch on 20 acres of land belonging to 12 farmers, subsequently 70 farmers agreed to cultivate lemon grass on 80 acres of land.

Meanwhile, nine micro river lift irrigation projects and two river lift irrigation projects were sanctioned with continuous follow ups with Odisha Lift Irrigation Corporation (OLIC), district and local authorities by our UAIL team which has been a silver lining in the success of the project.

Furthermore, Hindalco has developed a local entrepreneur and supported him to establish an oil extraction unit at a nearby village Jogiparitunda while facilitating the traders of lemon grass oil by purchasing at a price ranging from ₹ 1,070 to ₹ 1,230 per kg. The village received a hand full of money from its first and second harvest. The company has planned to bring another 200 acres of land under lemon grass along with two more oil extraction units in the FY 2021-22.

We were able to achieve a significant impact wherein 162 acres of land was covered under cultivation by 111 farmers of 16 villages. These lands were traditionally used for mono crop only in rainy season earlier. In addition, 128 acres of land brought under irrigation and 1992 human days of work created for daily wage laborer.

We have seen a positive outcome of our project since 1918 Kg of oil was produced by 79 farmers with an earning of ₹ 21,00,800 in FY 2020-21 and 24 local unemployed persons got employment in two oil extraction units.

Project SAKSHAM
Sanjivini – The Spices of Western Odisha

Hindalco's CSR initiative to Promote Spice Processing Unit as an income generation activity (IGA) among marginalised womenfolk has led to the formation of self help group (SHG) "Sanjivini Producer Group" to support 26 Women of Naikpada Model Village. Our capacity building initiatives for the self help group involves supporting and encouraging women to start their own bank accounts and enable them to have a source of livelihood. Aditya SHG's coordinators have started working on Self Reliance Strategy that is our approach for the Project SAKSHAM in which SHG members will invest in the IGA to ensure that they have ownership. The SHG has decided to start processing turmeric. The group processed the turmeric manually from an identified vendor by procuring 500 kg and then identified one grinding mill at Rengali. After grinding turmeric, they started selling it in the local market and witnessed a surge in demand.

They are about to procure chilli from Bamra which is also identified by the government of Odisha as one spice for Sambalpur region that will be promoted through government aid. The outcome has been 30% household were directly impacted positively through the SHG. Now each member can earn 15000 by processing 5 quintals of raw turmeric.

In addition, Odisha Livelihood Mission recognised and registered them as Producer Group and will provide ₹ 2.5 lakh subsidy. We are taking steps to expand the IGA into other spices after purchasing a grinding machine and launch a local brand as entrepreneur.

A tailoring SHG- Part of Project Saksham

At Hindalco we have identified many operations with significant actual and potential negative impacts on local communities. Utkal, Lohardaga and Muri Mines are identified in this category.

Our focus is to identify stakeholders who are being impacted and identify players in the ecosystem who will partner to mitigate the negative impacts like Government, NGOs, and CBOs. To create employment opportunities, skill trainings are being organised for youths in partnership with government schemes. To mitigate water scarcity and water pollution, water tests are being conducted to check the water quality and take corrective measures to free water from impurities by putting bleaching powder and promoting ground water recharge through watershed and rainwater harvesting system.

We have a mechanism to track the progress of these mitigation plans through our grievance record system which are reviewed periodically, the challenges are discussed and the corresponding solutions are developed.

We are focusing on creating positive long-term sustainable impact. One important win-win strategy is to create livelihood opportunities through best agricultural practices, skill development, enterprise development, promotion of MSMEs and thus impact the overall quality of life of people in the community. This will be achieved through small targets in short and medium term and result in a net larger impact in the long term.

COVID-19 and Hindalco's Community Relationship:

Our dedicated CSR team members were on field meeting BDO, CMO, CDMO and communities to ensure that nutrition kits, hand wash, and masks were being distributed to everyone in need. Relentless awareness camps were conducted to create awareness among health workers and community alike about the virus. We answered queries and provided solace and empathy to people who panicked. We have supported the government in containing the spread of the virus by providing state of the art health equipment to government health facilities. We have upgraded our healthcare facilities and converted them into dedicated COVID-19 care units. The pandemic has reinstated the necessity of good lifestyle to ensure healthy living and focus to upgrade health infrastructure for self- reliance and going forward we will focus more on health initiatives with holistic and inclusive approach.

Kosa Silk Value Chain Rejuvenation Project at Gare Palma Mines

Reeling and weaving of Kosa (tussar) silk has been an ancient art form of the Dewangan community residing in the Champa district of Chhattisgarh. But due to lack of innovative designs, access to urban markets and inadequate income of the artisans, this heritage art form has been endangered. We undertook an initiative with the vision of realising the full potential of Kosa silk artform and ensuring that it claims its rightful position in the domestic and global markets. Through this initiative, we aim to create sustainable livelihood opportunities and improve the income levels of reelers and weavers by two times, in the next five years.

As part of our initiative, we addressed various challenges by focussing on specific areas viz. Product Design Innovation, Value Chain Integration, and Developing Market Linkages by collaborating with Kosala Livelihood and Social Foundation to develop a design for the urban market, integrated the entire value chain and undertook training and brand establishment activities along with market linkage development.

Owing to our efforts, currently we have received our first order worth J 8 Lakhs for producing 96 sarees and a fabric of 120 meters. Additionally, we secured orders for more than 400 combination boxes generating employment for 20 to 25 weavers for 50-60 days which amounted to an average income of ₹ 21,000 per weaver. An order of ₹ 5 lakhs for sourcing gift items for our Hindalco Women Conclave has also been received.

We were able to establish a thriving eco-system encompassing the entire value chain (cocoon farmers, reelers, weavers, ancillary activities). We will be able to create sustained livelihood opportunities for ~800 weavers and alternative livelihood opportunities for 750 weavers by FY 2025-26.

CUSTOMER CONNECT

Throughout our journey at Hindalco, we strive to meet the expectations of our customers in each business area. Our efforts are backed by clear policies, rules, and well-structured mechanisms. On our path of transformation towards a reliable organisation, we streamline our customer-centric processes to build long-term relationship with our customers.

Our customer centricity initiatives and projects thrive to meet the requirements of our customers. Involving our top management team in reviewing these initiatives and projects ensures long-term value creation for our stakeholders. We focus on the following key dimensions of customer centricity at Hindalco.

Improving ease of doing business	Creating Higher Customer Engagements	Ensuring Fast resolution of customer complaints	Listening Learning and Acting on Customer Feedback

CUSTOMER REQUIREMENTS

Our Customers

Our geographical footprint is spread across 48 locations with 15 locations in India and Novelis' facilities is spread across four regions, 33 operating locations, and truly gives us the ability to leverage our global scale and footprint to serve our largest global customers. For us, proximity to our customers is important and that is an advantage because we are the only Aluminium flat roll product player with production units across all four major continents. We are well positioned to capture the demand we see in this marketplace over the next five years.

Our Sustainable Products

To develop and nurture a sustainable business, we constantly focus on innovation, excellence, and quality in all the products that we develop. Keeping long-term reliability in mind, our Research and Development team designs and develops our products considering the inherent characteristics of the metals we produce. Properties of Aluminium such as high recycling potential, light weight and high malleability make it suitable for varied applications. This represents our approach towards developing products with low emissions intensity during their lifecycle.

Our customers-Aluminium

We have launched new innovative partnerships like Alumobility, to work with our customers to enable the continued adoption of Aluminium solutions. Our customer segment in the Aluminium business include:

- **Primary:** Power & Cable, Extrusions and FRP secondary segment, Chemicals
- **FRP:** B&C, Automotive, Durables, Industrial and Electrical
- **Extrusions**: B&C, Automotive, Electrical, Industrial and Defence
- **Foil:** Pharma, Food, Cigarettes, Household and Hotels & Restaurants (HORECA)

Aluminium Business

We have shifted to the Net Promoter Score (NPS) model (from the Customer Satisfaction model adopted in the past) to better understand customer needs and collate specific actionable customer feedback. To effectively process customer feedback and develop action plans across the business, we use both a top down and bottom up approach. The top down surveys are conducted for each of the businesses in Aluminium every alternate year. The data is analysed and discussed with the business teams and specific action plans for implementation are drawn up based on this.

SBU	NPS received in FY	Top-Down NPS score	Next Survey Planned in FY
Extrusion	FY2020-21	58%	FY2022-23
Foil	FY2020-21	46%	FY2022-23
FRP	FY2019-20	29%	FY2021-22
Primary – Ingots	FY2019-20	59%	FY2021-22
Primary – Wirerod	FY2019-20	64%	FY2021-22

Our Customers-Copper

- **Power Industry:** Manufacturers of Conductors for Transformers, Generators & Power equipment, House wire Cables & Power Cable.
- **Automotive:** Manufacturers of Wiring Harness, Casting Components, motors
- **Constructions:** Manufacturers of Piping, Earthing, Plumbing, Building wires
- **Railways:** Manufacturers of Overhead conductors, internal wiring, Signaling Cables
- **Consumer Goods:** Manufacturers of Winding Wires, Cables or Home Appliances, Pumps & Motors
- **Electronics:** Manufacturers of Specialised wires, Copper foils, Circuit boards.

Markets served by Hindalco are

Automotive and Transport

Copper plays an instrumental role in the automotive industry. Various components such as alternators, motors, actuators, and the wire harness system depend on high conductivity which is superbly offered by Copper. More Copper will be needed as automotive electrical developments increase awareness, safety, comfort, and automation.

Consumer Durables

Consumer durables such as air conditioners and refrigerators utilise Copper tubes as heat exchangers because of its excellent thermal conductivity and heat dissipation property. The cathode ray tubes present in televisions as well as magnetron used in a microwave oven are made of Copper. Copper is used extensively in wiring and contacts for mobile phones, televisions, and computers. Copper is used in microprocessors and heat-sinks. Being an energy efficient metal, Copper and its alloys find various applications in electronics.

Electrical Equipment

Copper finds a plethora of applications in the electrical industry because of its highest electrical conductivity among other commercial metals. In addition to its excellent electrical and thermal conductivity, Copper has ideal mechanical properties and can be easily fabricated. More than half of the Copper produced is used for electricity. The important uses include power generation and transmission of electricity. It is used in cables, transformers, motors, bus-bars, alternators, generators, to provide electricity throughout the country, safely and efficiently.

Railways

Copper is indispensable to the development of electrical locomotives. The modernisation and expansion of the railway network in India is a continuous exercise requiring large amounts of Copper and certain Copper alloys for the overhead electrification. There is also a considerable use of Copper in signalling systems, besides all the miscellaneous needs for pantographs, switchgear, brake systems, motor windings, commutator bars, large and small service stations.

Aleris acquisition allowed entry into premium aerospace plate and sheet market

Wire and Cable

Copper is extensively used in building wires, communication cables, co-axial cables, power cables, specialty and industrial cables. Copper's high electrical conductivity, ductility and tensile strength make it an ideal metal in the wire and cable industry.

Hindalco produces LME grade Copper cathodes, continuous cast Copper rods in various sizes, and precious metals like gold and silver. Birla Copper's brands, Birla Copper and Birla Copper II, are recognised for their high purity and consistent quality in the domestic as well as global markets.

Cluster Meet	Dealer Meet	Social Reforms	Sustainable Livelihood

Our Copper business has adopted both bottom up and top down NPS practice. Through Bottom up practice, the regular feedback and NPS rating is received from customers through our dedicated call Centre and is captured in a system driven Mission Happiness platform. Feedback received from the customers is analysed and inputs are incorporated into our processes by involving cross-functional teams at plant and zonal levels. Action plans are prepared with timelines, and these are implemented, reviewed, and monitored on a timely basis. Following this, we communicate the same to our respective customers accordingly to close the loop.

To improve customer experience, we ensure that feedback received from customers is analysed and relevant actions are taken. We have a structured approach on customer engagement through periodical visits by cross functional teams to customer locations and regular interactions with customers. As part of these meetings, management officials visit customer premises and interact with shop floor employees. There are several modes through which we interact with customers.

Smelter 1- Anode casting area at Birla Copper, Dahej

Events like cluster meets, dealer meets, and new product launches are also organised to improve customer interactions. Owing to our diverse portfolio of product offerings and wide customer base spanning sectors from pharmaceutical sand packaging to automotive and transport, it is essential that all our products comply with local and international product regulations, including codes, service information and labelling. Emphasising on the health and safety aspects of our products, we ensure all our products are assessed for further improvements in aspects related to these areas. All our products meet the compliance requirements of the markets, including those related to Environment and Health & Safety (EHS). During FY 2020-21, there was no incidents of non-compliance concerning marketing communications, product and service information or labelling. All our products comply with local and international regulations concerning product and service information and labelling.

SUSTAINABLE VALUE CHAIN

Aditya Birla Group understands the importance of building a sustainable supply chain for the growth and sustenance of businesses. We recognise the importance of developing a strong relationship with suppliers and building their capabilities which will improve the Group's performance.

We are working with suppliers on improving their processes and practices. This is a priority for the Group and is integral to our commitment towards Responsible Stewardship of our operations. Furthermore, external factors will affect the supplies of our raw materials, equipment end components over time and maintaining a robust and viable supply chain is vital to the sustainability of our businesses.

During the reporting period, we were associated with 9,218 supply chain partners. Moreover, to ensure effective environment footprint management, we are trying to incorporate Environment Management Systems at our suppliers' businesses. 100% of suppliers are ISO 14001 certified. We focus on strengthening our local economy. Our transportation and logistics segment greatly contribute to the same. While most of our suppliers are from India, we also have suppliers from countries like China, US, Mexico, Italy, Singapore, Japan, Togo, Chile, Peru, Brazil, Canada, Australia, Indonesia and South Africa. Our total procurement spent for the current reporting period is at 27,442.82 Cr, which aided us in providing indirect local employment and income to our suppliers.

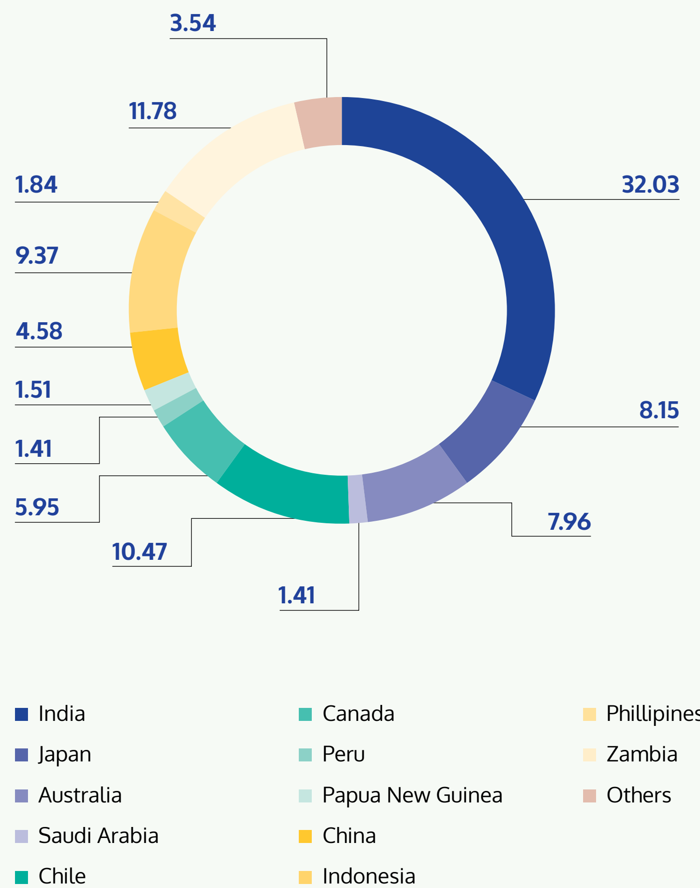
Supplier Network

Type of Supplier	Absolute Number of Suppliers	Amount Spend (₹ Cr)	Supplier Assessed	Supplier Assessed through comprehensive methods	Share of Total Procurement Spend
Total Tier-1 Suppliers	9,218	12,746.25	1,128	48	100%
Critical Tier-1 Suppliers	1,804	11,334.43	276	42	89%
Critical non-Tier-1 Suppliers	0	0	0	0	0%

Breakdown of our procurement spend is as follows:

	Procurement spend (₹ Cr)	% of spend
India	8,791.22	32.03%
International Suppliers	18,651.60	67.97%

Share of Procurement Spend (%)



Bifurcation for Others Category

Country	%
Lithuania	0.02%
Abu Dhabi	0.07%
Jordan	0.06%
Mexico	0.05%
USA	0.19%
Kuwait	0.17%
South Africa	0.57%
Russia	0.31%
Brazil	0.53%
Malaysia	0.80%
Congo	0.41%
Mozambique	0.17%
Italy	0.18%
Total	**3.54%**

Supplier details for our Novelis operations

Type of Supplier	Absolute Number of Suppliers	Share of Procurement Amount Spend
Total Tier-1 Suppliers	14,806	100%
Critical Tier-1 Suppliers	66	0.40%
Critical non-Tier-1 Suppliers	81	0.50%

Supplier Code of Conduct

Anti-corruption/ Anti bribery	**Fair treatment to Employees, and Health and Safety of Personnel**	**Environmental and Statutory Compliance with all Applicable Laws, Rules and Regulations**	**Recognise Employees' Right to Privacy and Personal Dignity.**
Compliance with Environmental Regulation	**Business Ethics**	**Forced Labour and Child Labour are Prohibited and Fair Remuneration**	

The Aditya Birla Group's goal is to procure sustainable goods and services that represent the best price, quality, delivery, and technological offering. Every Aditya Birla Group Company shall therefore endeavour to:

- Ensure compliance to the local, national, and international legislation within the supply chain adherence to the ABG Code of Global Business Ethics and Compliance Standards and conformance to the ABG sustainability Framework requirements.
- Create a supply chain that is resilient and viable amidst risks and opportunities potentially arising from the external legal, technical, environmental, and societal megatrends as part of our business future-proofing programme.
- Build capability within the supply chain and work towards creating best-in-class supply chain solutions.
- Adhere to the principle of traceability to the origin of goods throughout the supply chain.
- Promote resource conservation, use of alternative materials and renewable energy, water stewardship, safety, health, respect for human rights and elimination of child and forced labour across the supply chain.
- Influence our suppliers to adopt the Aditya Birla Group Sustainability Framework policies and standard and encourage the development of an equivalent management system throughout the supply and value chain.
- Actively communicate and disclose our approach and achievements to the suppliers.

Hindalco's suppliers are quantitatively assessed against their ESG performance.

In order to ensure a sustainable value chain, we work closely with our supply chain partners. All our supply chain partners are expected to abide by the Supply Chain Code of Conduct. All suppliers and vendors undergo a periodic assessment with respect to the Code of Conduct. We also encourage our suppliers to develop their environment and social management systems.

We observed that, during the reporting period, none of our suppliers were penalised or terminated for violation of labour practices or any negative impact on environment or society.

Supplier Evaluation & Risk Assessment

We have a supplier risk assessment process at Hindalco wherein suppliers are evaluated before on-boarding and every two years post selection, they are evaluated on parameters around health and safety, environmental awareness, labour management and human rights, statutory compliance, financial attributes, and market dependency. These are in line with our strategy to create a resilient and viable value chain. A similar assessment is conducted for suppliers of Novelis. We also conduct scenario analysis to identify key risk indicators along the entire supply chain basis which the evaluation parameters are updated. Based on risk assessments each supplier receives a score which determines their risk rating and gives an overview of prevalent risks. Basis their rating, they are classified into High, Medium or Low Risk. Suppliers who score less than 2.5 in the sustainability risk assessment are classified as High-Risk suppliers. They lose an opportunity to receive inquiries or business from Hindalco. According to the most recent vendor assessment conducted in FY 2018-19, 38% of our critical suppliers scored below 2.5 and further we aim to reduce such suppliers by 3 to 5% by FY 2023.

At Novelis, in order to identify risks, CSR indicator is also received from Dun and Bradstreet for all suppliers with accepted Duns number, and Conflict Minerals confirmation is obtained from critical suppliers annually. The findings play a major role in shaping our sourcing strategy.

We have been assessing an increasing number of suppliers with the ESG criteria and ensure compliance. Additionally, we have detailed questionnaires to assess the compliance of the supplier to the ESG criteria. The most recent vendor assessment conducted in FY 2018-19 showed an increase in the percentage of supplier compliance from 40% in FY 2016- 17 to 67%.

Cargo carrying vehicles move in and out of the captive jetty at Birla Copper Dahej. Vendor management, a subset of Risk Management, minimises risks to business disruption.

Risk Rating

Risk Rating	Category
Less than 2.5	High Risk Supplier (Development Needed)
2.5 to 3.24	Moderate Risk Supplier (Acceptable-Action may still be required)
3.25 to 5.00	Low Risk Supplier

Launch of Hindalco's Aluminium bulker

COVID-19 and Supply Chain at Hindalco

During the lockdown, our established transportation by trucks, mine operations of our suppliers, vessel movements were highly impacted. We identified the new and alternative modes of transportation for the supply of solid coal tar pitch and Aluminium fluoride. Also, due to our strong relationship with our suppliers, we managed to either divert, swap or delay the shipments, which enabled us to avoid blockages of working capital. We believe that business and non-business relations with supplier play an important role in times of crisis.

Our Key Associations

We have been associated with some of the reputed trade and industrial bodies. Some of the associations are as follows:

- Aluminium Association of India
- Confederation of Indian Industry
- Winding Wire Association
- Federation of Indian Chambers of Commerce & Industry
- International Copper Association India
- Indian Copper Development Centre
- Maharashtra Chamber of Commerce, Industry & Agriculture
- Automotive Research Association of India
- Indian Electrical and Electronics Manufacturers' Association
- Primary Copper Producers Association

Additionally, during FY 2020-21, we contributed ₹ 1.41 lakhs towards various trade associations, industry associations and business associations in the form of their membership fees. No political contribution or charitable contribution have been made towards any means of bribery or corruption during the reporting period. We did not make any contributions to or expenditures to political campaigns or organisations, lobbying, trade associations, tax-exempt entities, or other groups whose role is to influence political campaigns or public policy and legislation.

AWARDS AND RECOGNITION

Corporate

- Hindalco was recognised as Aluminium Industry Leader for its sustainability performance in the 2020 edition of the S&P Dow Jones Sustainability Indices (DJSI) Corporate Sustainability Assessment (CSA) rankings
- Hindalco was named Smart Industry Transformational Leader in the 'DX Trailblazer' category

Novelis

- DENSO recognized Novelis with the Supplier Diversity and Community Activities Award for 2020

Mahan Aluminium

- 'Best Energy Efficient' Plant Award from Mission Energy Foundation in the Coal Preparation Plant category for the Western region in 2021
- Energy Efficient Unit 2020 Award to Mahan Coal Preparation Plant from Confederation of Indian industry in their Power Plant category
- CSR Times, EDITOR's Choice Awards 2020 awarded for Project Gyaan - Support for Quality Education.
- CII National Award for Excellence in Water Management for 'Noteworthy Project in Water Management' in the Category Beyond the fence.

Hirakud Smelter & Power Plant

- CEM Insight Award 2020 by Clean Energy Ministerial
- Excellent Energy Efficient Unit Award Hirakud smelter at the 21st edition of the National Energy Award for Excellence in Energy Management (2020) by CII
- Award for the Energy Efficient Unit in the Power Plant category received by Hirakud power plant at the 21st National Energy Award by CII

Belur

- Achieved 4.5-star rating at the Encon Award 2020 from CII

Renukoot

- Best Achiever Award in the PAT Cycle-2 segment by the Uttar Pradesh State Designated Agency (UPSDA)
- Online Energy Conservation Award by UPSDA

Aditya Aluminium

- The CII Eastern Regional Productivity Award presented by the Chairman CII Eastern Region for contribution in the areas of productivity in January 2020
- Fame Excellence Platinum Award 2020 for Excellence in Best Practices to Fight Against COVID-19 from Fame India
- India CSR Award under the category of Women Empowerment for Project SAKSHAM

Utkal Alumina International Limited

- Utkal Plant wins "Challengers Award" at Frost & Sullivan Sustainability 4.0 Award under Mega Large Business, Process sector companies
- Golden Peacock Award for Corporate Social Responsibility 2020 awarded for Project WADI
- CSR Times Award 2020 for Project Samriddhi

STANDARD FRAMEWORKS

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Principle 2	Businesses should provide goods and services that are safe and contribute to sustainability throughout their life cycle.	Social and Relationship Capital	137
Principle 3	Businesses should promote the wellbeing of all employees.	Human Capital	58
Principle 4	Businesses should respect the interests of, and be responsive towards all stakeholders, especially those who are disadvantaged, vulnerable and marginalised.	Stakeholder Engagement and Materiality Assessment	32
Principle 5	Businesses should respect and promote human rights.	Human Capital	58
Principle 6	Business should respect, protect, and make efforts to restore the environment.	Natural Capital	96
Principle 7	Businesses, when engaged in influencing public and regulatory policy, should do so in a responsible manner.	Social and Relationship Capital	145
Principle 8	Businesses should support inclusive growth and equitable development	Financial Capital	36
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3	Business should uphold the freedom of association and the effective recognition of the right to collective bargaining	Human Capital	58, 59
4	The elimination of all forms of forced and compulsory labour	Human Capital, Social and Relationship Capital	58, 59, 143
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OUR CONTRIBUTION TO SUSTAINABLE DEVELOPMENT GOALS

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5. Gender Equality Achieve gender equality and empower all women and girls	Human Capital, Social and Relationship Capital	60, 132
6. Clean Water and Sanitation Ensure availability and sustainable management of water and sanitation for all	Natural Capital, Social and Relationship Capital	79, 109, 132, 135
7. Affordable and Clean Energy Ensure access to affordable, reliable, sustainable and modern energy for all	Natural Capital	98
8. Decent Work and Economic Growth Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Financial Capital, Manufactured Capital, Human Capital, Social and Relationship Capital	37, 48, 58, 60, 133, 134
9. Industry, Innovation and Infrastructure Build Resilient Infrastructure, promote inclusive and sustainable industrialisation and foster innovation	Manufactured Capital, Intellectual Capital, Natural Capital, Social and Relationship Capital	48, 84, 86, 108, 133
10. Reduced Inequalities Reduce inequalities within and among countries	Human Capital, Social and Relationship Capital	56, 132
12. Responsible Consumption and Production Ensure sustainable consumption and production patterns	Manufactured Capital, Intellectual Capital, Natural Capital	48, 50, 84, 86 108,119
13. Climate Action Take urgent actions to combat climate changes and its impacts	Natural Capital	98
15. Life on Land Protect, restore and promote sustainable use of terrestrial ecosystem, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	Natural Capital	108, 124

GLOSSARY OF ABBREVIATIONS

ABSTC	Aditya Birla Science and Technology Centre
APC	Auxiliary power consumption
BCOE	Leadership, Behavioural, Functional Learning
BEE	Bureau of Energy Efficiency
BMP	Biodiversity Management Plans
BOD	Biological Oxygen Demand
BQiP	Build Quality in Process
CASB	Cloud Access Security Broker
CC	Copper Continuous Cast
CCQC	Chapter Convention on Quality Concept
CCUS	Carbon Capture Utilisation and Storage
CEMS	Continuous Emissions Monitoring System
Cfm	Cubic Feet per minute
CII	Confederation of Indian Industry
COD	Chemical Oxygen Demand
CPCB	Central Pollution Control Board
CPP	Captive Power Plants
CSM	Contractor Safety Management
CSO	Chief Sustainability Officer
CSOD	Cornerstone On Demand
CuCB	Copper Collector Bar
DAP	di-Ammonium Phosphate
DGMS	Director General of Mines Safety
DJSI	Dow Jones Sustainability Index
EDR	Endpoint Detection and Response
EHS	Environment, Health & Safety
EPR	Extended Producer Responsibility
ERM	Enterprise Risk Management
ESP	Electrostatic Precipitator
ESR	Ecosystem Services Review
FAME	Foundation for Accelerated Mass Empowerment
FGD	Flue Gas De-sulpuraisation
FIMI	Federation of Indian Mineral Industries
FLY	Future Leaders in You
FPY	First Pass Yield
FRHF	Fire Resistant Hydraulic Fluid
FRP	Flat Rolled Products
GHG	Greenhouse Gas
GRM	Grievance Redressal Mechanism
GVC	Gyanodaya Virtual Campus
HAAL	Hindalco Almex Aerospace Ltd
HIC	Hindalco Innovation Centre
HIRA	Hazard Identification and Risk Assessment
HTLS	High temperature low sag
HTU	Hindalco Technical University
IBAT	Integrated Biodiversity Assessment Tool
IC	Internal Complaint
ICAI	Institute of Chartered Accountants of India
IIRC	International Integrated Reporting Council
IMS	Integrated Management System
IPCC	Intergovernmental Panel on Climate Change
IR	Integrated Report
ISAE	International Standard on Assurance Engagements
ISO	International Organisation for Standards
IT	Information Technology
IUCN	International Union for Conservation of Nature
IWT	India Water Tool
JSA	Job Safety Analysis
LDO	Light Diesel Oil
LME	London Metal Exchange
LPA	Layered process audit
LPM	Litres per minute
LTIFR	Lost Time Injury Frequency Rate
LTISR	Lost Time Injury Severity Rate
MCOE	Manufacturing Centre of Excellence
MD	Managing Director
MDP	My Development Plan
MOC	Management of Change
MSEF	Maintenance, Strategy and Execution Framework

MVR	Mechanical Vapour Recompression
NAAQS	National Ambient Air Quality Standards
NCQC	National Convention on Quality Concept
NCQC	National Convention on Quality Concept
NG	Natural Gas
NNL	No Net Loss
NOx	Oxides of Nitrogen
NPS	Net Promoter Score
ODS	Ozone Depleting Substances
OIC	Opportunities, Ideas and Concepts
OLIC	Odisha Lift Irrigation Corporation
PAT	Perform, Achieve, Target
PCB	Pollution Control Board
PDCA	Plan Do Check Act
PGPR	Plant Growth Promoting Rhizobacteria
PM	Preventive Maintenance
PM	Particulate Matter
PMGKY	Prdhan Mantri Garib Kalyan Yojana
POSH	Prevention of Sexual Harassment
PPE	Personal Protective Equipment
QC	Quality tools
QLEA	Qualitative Exposure Assessment
QnEA	Quantitative Exposure Assessment
REC	Renewable Energy Certificate
ROI	Return of Investment
RPO	Renewable Purchase Obligation
SHE	Safety Health & Environment
SME	Subject Matter Experts
SOP	Standard Operating Procedure
SOx	Oxides of Sulphur
SPL	Spent Potlining
SRC	Semi-Rigid Container
SUP	Single Use Plastic
SWRO	Sea Water Reverse Osmosis
TB	Tuberculosis
TCOE	Technical & Hindalco Technical University
TERI	The Energy and Resources Institute
TNI	Training Needs Identification
TRIFR	Total Recordable Injury Frequency Rate
TS	Technical Standard
TSS	Total Soluble Solids
TWRU	Tertiary Water Recycling Unit
UN SDG	United Nations Sustainability Development Goal
UNGC	United Nations Global Compact
UPSDA	Uttar Pradesh State Designated Agency
VAP	Value-Added Product
VCM	Vesicular Arbuscular Mycorrhizal
VFD	Variable Frequency Drives
WCM	World Class Manufacturing
WHB	Waste Heat Boiler
WRI	World Resource Institute
ZLD	Zero Liquid Discharge

Management Discussion & Analysis

Hindalco Industries Limited, the metals flagship of Aditya Birla Group, is the world's largest Aluminium rolling and recycling company and a major copper player. Hindalco is also one of Asia's largest producers of primary Aluminium.

Consolidated Net Debt to EBITDA at

2.59 Times

At the end of the year Hindalco continued to maintain its strong balance sheet in FY 2020-21

Today Novelis recycles

74 BILLION CANS

A year, enough to circle the globe more than 160 times

In India, the Company's aluminium manufacturing units comprise the full value chain, from bauxite mining, alumina refining, coal mining, captive power generation and aluminium smelting to downstream value addition of Aluminium rolling, extruding and foil making. Hindalco's copper facility in India comprises of a world-class copper smelter, downstream facilities, a fertilizer plant and a captive jetty. The copper smelter is among the world's largest custom smelters at a single location. Hindalco is one of the largest suppliers of copper to the Indian Railways.

Novelis Inc., Hindalco's wholly-owned subsidiary, is the world's largest producer of aluminium beverage can stock and aluminium automotive sheet, and the largest recycler of Aluminium. Novelis provides innovative solutions to its customers in the beverage cans, automobile, aerospace and high-end speciality markets (including foil packaging, certain transportation products, architectural, industrial, Building & Construction (B&C) and consumer durables).

It operates an integrated network of technically advanced rolling and recycling facilities across North America, South America, Europe and Asia. Hindalco's (including Novelis) global footprint spans 48 manufacturing units across 10 countries and 4 continents. Novelis has recycling operations in 15 of these global operating facilities. Today Novelis recycles 74 billion cans a year, enough to circle the globe more than 160 times.

In FY 2020-21, the Company delivered a resilient and strong performance, despite macroeconomic challenges, tough market conditions on account of the COVID-19 pandemic and global uncertainties. This performance was mainly driven by higher volumes and better product mix, lower input costs, stability in operations and cost-saving actions in India as well as its overseas operations. Novelis closed its acquisition of Aleris Corporation and is now integrating the two companies. Novelis continued to report its best-ever EBITDA and EBITDA per ton and overall shipments, including Aleris. Hindalco continued to maintain its strong balance sheet in FY 2020-21, resulting in a consolidated Net Debt-to-EBITDA of 2.59 times at the end of the year.

FY 2020-21: KEY HIGHLIGHTS

3,613# KT
Overall shipments in Novelis

US$1.714# BILLION
Record Adjusted EBITDA in Novelis (up 16%)

US$474
Record Yearly adjusted EBITDA/ton in Novelis

61 %
Recycled inputs in Novelis

ALERIS ACQUISITION
Completed on April 14, 2020

2,699* KT
Alumina production

1,229 KT
Aluminium metal production

270 KT
Aluminium value-added products (VAP) in India (excluding wire rods) production

235 KT
Copper rods Production

₹1,31,985 CRORE (UP 12%)
Consolidated Revenue

₹18,896 CRORE (UP 22%)
Consolidated EBITDA

₹5,182 CRORE (UP 38%)
Consolidated PAT for Continuing Operations

* including Utkal, the wholly-owned subsidiary;
# Novelis FY 2020-21 Numbers includes Aleris

Key initiatives during the year

On April 14, 2020, Novelis closed its acquisition of Aleris Corporation. The acquisition provides a number of strategic benefits, including increasing the Company's footprint as an Aluminium rolled products manufacturer and diversifying its product and customer portfolio, including by providing entry into the aerospace market. In addition, more than $180 million of run-rate synergies have been identified through traditional integration cost synergies and strategic synergies created by enhancing and integrating operations in Asia. By the end of fiscal year 2021, $79 million of run-rate cost synergies have already been achieved. The acquisition of Aleris provides Novelis with further product diversification with the addition of high-end Aerospace and expanded speciality capabilities. It insulates Hindalco-Novelis from global price volatility and sharpens focus on the downstream business.

Novelis remains committed to all its organic projects announced. The 200 Kt automotive finishing facility in Guthrie, Kentucky in the US and 100 Kt of the auto finishing line in China, were both commissioned in the second half of FY 2020-21, bringing global automotive finishing capacity to approximately 1 million tons when fully ramped up. Customer qualification continues to ramp up at both facilities to meet strong demand for lightweight, automotive Aluminium sheet. The recycling, casting and rolling expansion in Brazil and recycling facility in Greensboro also remains on track to commission in the middle of FY 2021-22.

In March 2021, Novelis successfully placed a 3.375%, €500 million Senior Unsecured Green bonds in Europe for eight years, due in 2029. Novelis received credit rating upgrades on Novelis unsecured notes by both S&P Global Ratings and Moody's Investor Services in March 2021. Hindalco's Credit Rating Outlook upgraded from 'Stable' to 'Positive' while reaffirming the rating at "AA' by CRISIL in April 2021.

Hindalco has been ranked as the Aluminium Industry Leader for its sustainability performance in the 2020 edition of the S&P Dow Jones Sustainability Indices (DJSI) Corporate Sustainability Assessment (CSA) rankings. Hindalco is the only Company from India to be recognised as an Industry Leader this year. Industry Leaders are the top-performing companies in each of the 61 industries represented in the DJSI. Hindalco also featured in the S&P Global Gold Class category as 'Sustainability Leaders of 2021' in the Dow Jones Sustainability Yearbook 2021.

Utkal's Alumina brownfield capacity expansion, by 500 Kt, is on track with mechanical completion underway with commercial production to begin in quarter two of FY 2021-22. This will further strengthen the Company's integration and boost the availability of best-in-class alumina to its aluminium smelters in India.

Hindalco's sustainable business model focussed on downstream product expansion in India is expected to nearly double its existing downstream capacity in the next 5-6 years. Hindalco, in December 2020, announced its plans to set up a 34,000-ton extrusion plant at Silvassa. The new plant will service the fast-growing market for extruded aluminium products in the western and southern regions. The ₹730-crore project in Silvassa signals a big step forward in Hindalco's downstream strategy as the Company moves ahead with its long-term downstream investment plan. The Company's intent is to build a larger value-added product portfolio over the next few years. This investment indicates confidence in the economic revival, which will grow the demand for downstream value-added products.

1. Industry analysis

1.1 Aluminium Segment and Industry Review

Global economic activity in CY 2020 was severely hit by enforcement of stringent lockdown measures as a result of the spread of the COVID-19 pandemic. Strong fiscal support of around 20% of world's GDP coupled with vaccination powered normalisation prevented an economic catastrophe. As the lockdown measures eased gradually in the second half of CY 2020, economic activity started to pick up. Global growth is projected to contract by 3.3% in CY 2020 (vs 2.9% in CY 2019, IMF Forecast). Except for China, the GDP in most advanced and emerging economies is expected to contract in CY 2020. Going forward, recovery will depend on the path of the pandemic, pace of roll-out of the vaccine and the extent of associated industrial activity disruptions. While the global economy is expanding, large sectoral and regional divergences in growth trajectory exist. The geopolitical tensions and trade frictions, deteriorating fiscal positions of governments are key downside risks to growth. According to the IMF, global growth in CY 2021 is projected to rebound to 6% on a contracted base in CY 2020.

The prolonged COVID-19 crisis dampened global economic sentiments, with most of the major economies experiencing a slowdown in economic growth. This in turn affected aluminium consumption. In CY 2020, primary aluminium consumption fell by 3% from the decline of 1% in 2019. The world, excluding China, de-grew by ~12% in 2020 on the back of 3% decline in CY 2019, owing to weakening demand in North America, Europe, and Japan. Among user industries, only packaging, including foil stock, recorded flattish growth year-on-year in CY 2020, whereas consumption growth declined in sectors like Transportation, Construction, Consumer Durables and Machinery & Equipment sectors. In CY 2019, China grew by 3% led by growth in auto, building and construction, consumer durables, packaging.

Global aluminium production Ex. China was flattish in CY 2020 versus growth of around 1% growth a year ago; production growth in China was ~4% YoY due to growth in Inner Mongolia and Yunnan, as compared to 3% degrowth in 2019. As a result, overall global production marginally grew by 2% YoY in CY 2020, down from a degrowth of 1% in CY 2019. Given the sharper slowdown of global consumption by 3% as against a production growth of 2%, leading to a surplus of ~2 million ton. Consequently, global inventories increased from ~10.5 million tons in the beginning of CY 2020 to ~12.5 million tons by the end of CY 2020. (See Figure 1&2)

The overall markets were in surplus of 2.0 million tons in Q1-CY 2020, and in the remainder of CY 2020, the markets were balanced. In China, since April 2020 till December 2020, consumption of Aluminium surpassed the production. In World Ex China, the consumption picked up since June '20 and reached Pre-COVID levels by November 2020 and December 2020. Consequently, the surplus also narrowed from level of 0.7 million in June 2020 to a deficit in November (See Table 1). This reduction in surplus led by an improvement in demand was also reflected in the prices. In beginning of Jan '20, the prices were at ~$1800/Mt, and by end of March '20, the prices declined to ~$1500/MT. As the demand recovered, by end of June 20, it stabilised to a little over $1600/MT, and by September, with increasing economic activity, the prices rose to pre-COVID levels of ~$1800/Mt. As the markets became more balanced, the prices improved to ~$2000/Mt by the end of the December 2020. Due to significant price fluctuations, the overall average for CY 2020 was $1704/MT. (See Figure 3)

Figure 1 : Primary Aluminium Consumption (in Million Tons)

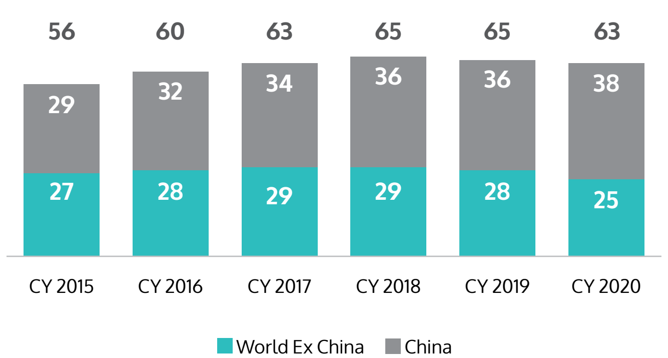


Figure 2 : Primary Aluminium Production (in Million Tons)

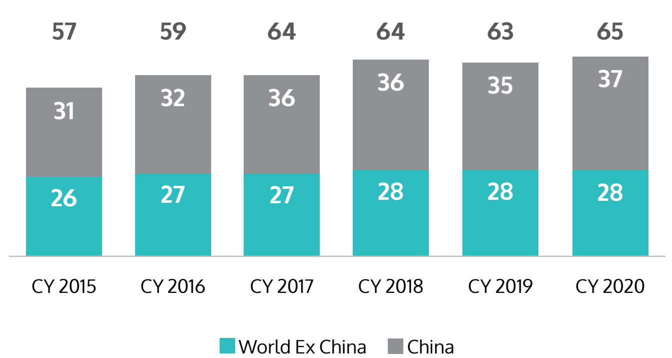


Figure 3 : Global Aluminium Prices ($/MT)

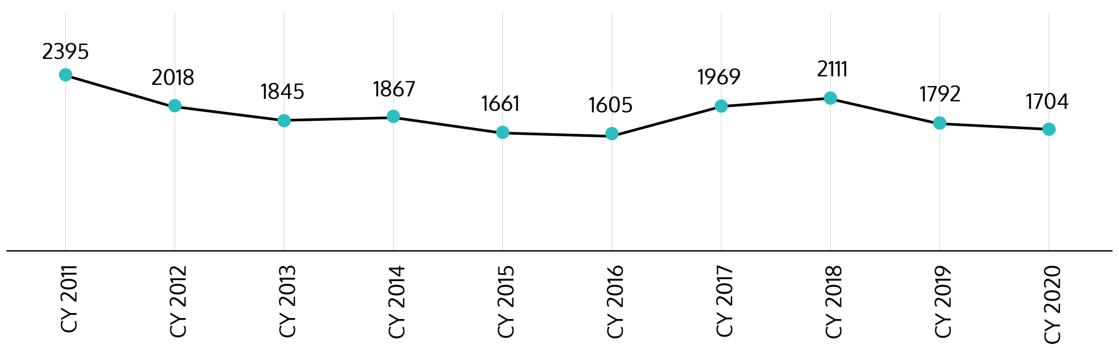


Table 1 : Global Demand & Supply Balance

World	Q1 CY 2020	Q2 CY 2020	Q3 CY 2020	Q4 CY 2020	CY 2020
Production (MnT)	15.9	15.8	16.3	16.7	64.8
Consumption (MnT)	13.9	15.7	16.3	16.9	62.8
Surplus/Deficit (MnT)	2.0	0.2	0.0	-0.2	2.0
Al Price ($/MT)	1690	1497	1704	1916	1704

The average value of premiums was also volatile. By the end of CY 2020, Spot Main Japanese Port (MJP), European Rotterdam Ingot duty paid and US Midwest premium was $86/t, $129/t and $12cents/lb, respectively versus $84/t, $143/t and $18 Cents/lb, respectively in CY 2019.

Domestic consumption is likely to decline by 8% in FY 2020-21. However, the pace of decline was much steeper in the Q1 FY 2020-21 due to COVID related lockdown. As the economic activity resumed, domestic consumption saw significant improvement across all sectors over the year.

Table 2 : Sector Wise Domestic Consumption YoY growth % in FY 2020-21

Sector	Q1 FY 2021	Q2 FY 2021	Q3 FY 2021	Q4 FY 2021 E	FY 2021 E
Electrical	-40% to -50%	-10% to -20%	-10% to 0%	0% to 10%	-10% to -20%
Building & construction	-50% to -60%	-30% to 40%	-10% to 0%	0% to 10%	-20% to 30%
Auto	-50% to -60%	-20% to -30%	30% to 40%	10% to 20%	-0% to -10%
Industrial & Defense	-10% to -20%	0% to 10%	40% to 50%	40% to 50%	15% to 25%
Packaging	-20% to -30%	-10% to -20%	10% to 20%	30% to 40%	-5% to 5%
Consumer Durables	-20% to -30%	-10% to -20%	20% to 30%	30% to 40%	5% to 15%
India Consumption	-42%	-22%	18%	21%	-8%
Imports Share %	68%	51%	63%	61%	60%

Source : Company Estimates

Imports continued to be a concern for domestic players. Even when the overall consumption declined by 8%, imports fell by only 4%. Consequently, the share of imports increased from 58% in FY 2019-20 to 60% in FY 2020-21. Overall imports, including scrap, touched ~2.1 Mt in FY21 from ~2.2 Mt in FY 2020. (See Table 2)

1.1.1 Outlook

In CY 2021, the global macroeconomic environment is expected to recover sharply. As per the IMF, in April 2021, the global economy is expected to rise by 6% in CY 2021 compared to a contraction of 3.3% growth in CY 2020. World ex-China demand is improving due to strong stimulus measures by global fiscal support and massive vaccination drive to support economic recovery. A strong push to global growth is from the US thanks to a massive fresh fiscal stimulus of $1.9 trn and President Biden's $2.3 trn infrastructure and jobs plan.

Packaging likely to witness strong momentum, while demand in transport is likely to recover with increasing Electric vehicles sales. In CY 2021, primary demand is likely to grow by 12-13%. In China, Strong solar, Electric Vehicles, Automotive and packaging sectors are likely to support Chinese consumption in CY 2021. In CY 2021, primary demand is likely to grow by 8-9%.

Global aluminium supply is likely to increase by 6% to 68-69 Mt. Production in the world excluding China is expected to increase by 4% to around 29-30 Mt. Primary aluminium supply in China is likely to grow marginally in the 39-40 Mt range, on the back of ramp-ups at Yunnan.

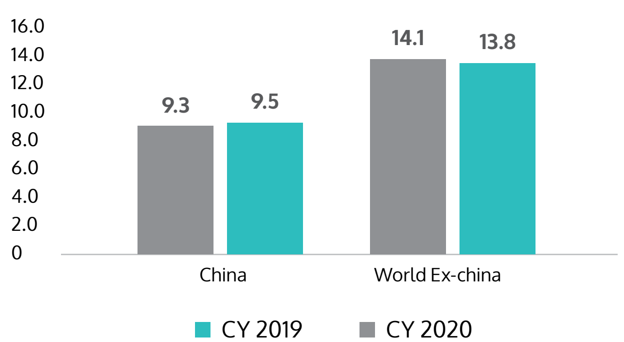
In CY 2020, with an increase in supply by 6% and a sharp growth in demand by 8% to 10%, market is expected to be balanced. Consequently, the inventories are likely to remain stable at ~12-13 million tons by the end of CY 2021.

In the domestic market, recovery in Transportation, Building & Construction, Industrial Equipment, and Consumer Durables. Imports of aluminium products, including scrap, continue to remain a major concern for domestic aluminium producers. Over the last few years, the domestic rolled and foil industry has been witnessing an increase in dumping of imports especially from China and FTA countries, at unfair prices, leading to pricing pressure. In light of the existing business environment, pricing pressure due to imports in rolled products and foil is expected in the FY 2021-22 as well, unless some proactive measures are taken by the Government to support the Aluminium industry in India.

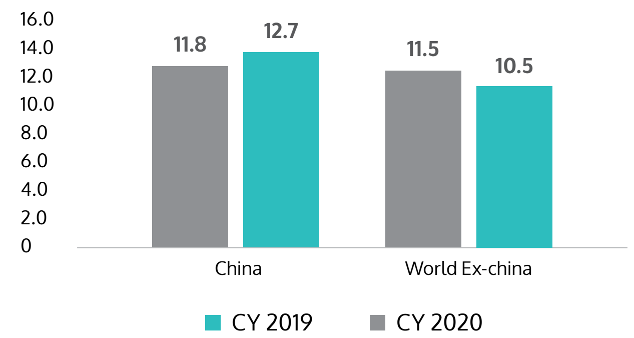
1.2 Copper Segment and Industry Review

In CY 2020, on yearly basis, Global refined copper consumption saw a dip by 1% to 23.2 Mt as compared to 23.3 Mt in CY 2019. The consumption in China grew by 7%, whereas World Ex China, declined by 8%. The global Copper market was impacted adversely due to COVID-19.

Refined Copper Production (Mt)



Refined Copper Consumption (Mt)



Indian Industrial Production was restricted by one of the world's strictest COVID-19 lockdowns in Q1 FY 2020-21 and improved gradually thereafter.

On a yearly basis, Domestic market demand reduced by 24% to 566 Kt in FY 2020-21 from 750 Kt in FY 2019-20.

Market share of Imports declined by 14% to 31% (178 Kt) in FY 2020-21 from 45% (335 Kt) in FY 2019-20, the major contributing factor being CVD imposition on Imports of Copper Wire (<6mm dia) from Indonesia, Malaysia, Vietnam & Thailand (excluding SEI Thailand).

On the raw material side, copper mines production was almost flat, with only 0.1% growth in Copper concentrate production globally in CY 2020 compared to the previous year. This was on account of multiple issues faced by the mining industry, including COVID-19 disruptions, local community issues in some South American countries, a drop-in copper grade in some large global mines.

The tight concentrate market has impacted benchmark Tc/ Rc for CY 2021 with the benchmark dropping by 3.7% from 15.9 US cents/lb during CY 2020 to 15.3 US cents/ lb. As far as spot Tc/Rc is concerned, the strong demand from China coupled with almost flat growth in Concentrate production resulted in a very tight market with Spot Tc/Rc being consistently below the annual benchmark of 15.3 c/lb and dropping to below 10 c/lb during the later part of the year.

1.2.1 Outlook

Global demand for refined Copper is expected to increase by ~5.6% in CY 2021. China is expected to grow by ~4%, and the rest of World Ex China is expected to grow ~7%. We expect that Indian manufacturing activity will further improve, and with a fall in imports, recovery of demand will also sustain. At the start of this financial year, Indian refined copper demand was expected to reach back to FY 2020 levels. However, surge in COVID cases, and lockdowns across the country may result in slower recovery.

In spite of all the challenges due to COVID disruptions and other issues, the Concentrate outlook is likely to grow by 3.9% during CY 2021. This is due to some new mines being commissioned during the year like Kamoa-Kakula in DRC, Spence project in Chile. Accordingly, spot Tc/Rc is expected to improve during the course of the CY 2021, in line with the more balanced market expected.

1.3 Novelis – Industry Review & Business overview

Q1 of FY 2020-21 were negatively impacted by a short-term reduction in demand for Aluminium rolled products as a result of the COVID-19 pandemic and restrictions put in place to combat the virus. Some industries such as automotive, aerospace, and some speciality markets, including heat exchangers and transportation, experienced a sharper demand decline than the more resilient beverage can segment.

However, demand strengthened considerably in the second quarter of FY 2020-21 across most end markets and remained favourable through the remainder of FY 2020-21. While aerospace demand is expected to remain muted into FY 2021-22, some end markets, including automotive and specialities, have returned to pre-COVID demand levels due to strong consumer demand. We believe the long-term trends for flat-rolled aluminium products remain strong.

Economic growth, material substitution, and sustainability considerations, including increased environmental awareness around polyethylene terephthalate ("PET") plastics, continue to support long-term increasing global demand for Aluminium and rolled products. With the exception of China where can sheet overcapacity and strong competition remains, favourable market conditions and increasing customer preference for sustainable packaging options is driving higher demand for recyclable aluminium beverage cans and bottles. At the end of fiscal 2019, we began expanding rolling, casting and recycling capability in Pindamonhangaba, Brazil to support this demand. Meanwhile, the long-term demand for Aluminium in the automotive industry continues to grow, which drove the investments we made in automotive sheet finishing capacity in North America, Europe, and Asia in recent years, and is driving additional investments in Guthrie, Kentucky (US), Changzhou, China, and Zhenjiang, China. This demand has been primarily driven by the benefits that result from using lightweight Aluminium in vehicle structures and components, as companies respond to stricter government emissions and fuel economy regulations while maintaining or improving vehicle safety and performance, resulting in increased competition with high-strength steel.

We expect long-term demand for building and construction and other speciality products will to grow due to increased customer preference for lightweight, sustainable materials. Demand for Aluminium plate in Asia expected to surge driven by the development and expansion of industries serving aerospace, semi-conductor, rail and other technically demanding applications. We believe significant aircraft industry order backlogs for key original equipment manufacturers (OEMs), including Airbus and Boeing, will translate into growth in the future, and we believe our multi-year supply agreements have positioned us to benefit from future expected demand.

The acquisition provides a number of strategic benefits, including increasing the Company's footprint as an aluminium rolled products manufacturer and diversifying its product and customer portfolio, including by providing entry into the aerospace market. The results from continuing operations reported for the period ending March 31, 2021 reflect the Aleris acquisition.

For a region-wise detailed business overview, please refer to the 10K filed by Novelis Inc. dated May 12, 2021 for the year ended March 31, 2021.

1.3.2 Outlook

On the broader outlook on the global FRP, there has been limited short-term impact resulting from the COVID-19 pandemic in some end markets, but long-term demands trends for FRP remain broadly intact.

Beverage can has historically been a relatively recession-resistant product, and demand for aluminium cans as a package type was very strong, particularly across the Americas. The automotive industry was severely impacted by the slowdown resulting from COVID-19 in the first quarter of FY 2020-21, as major US and European automotive OEMs temporarily shut down production. However, the resumption of customer operations beginning in May 2020, combined with strong demand for larger vehicles like pick-up trucks and SUVs, as well as strengthening demand for electric vehicles, has driven demand for the automotive aluminium sheet to above pre-pandemic levels by the fourth quarter. While we do see some short-term demand reduction resulting from the semi-conductor shortage impact on OEM production rates in the first half of calendar 2021, the long-term demand trends for automotive aluminium sheet remain strong.

Demand for specialities products has recovered from some short-term reduced demand driven by COVID-19-related impacts early in fiscal 2021. Demand remains particularly strong for aluminium sheet in the electronics market in Asia, as well as building and construction, transportation, and foil packaging in North America and Asia.

In aerospace, sharply lower consumer travel is expected to drive soft demand for aerospace sheet and plate for the next several quarters.

2. Business Segment Review

2.1 Hindalco – SWOT Analysis

INDIA ALUMINIUM

Strengths

- Integrated business model generating healthy cash flows
- The dominant player in India across upstream and downstream
- Utkal - among the world's most economical and efficient Alumina producers; capacity expansion of 500 Kt in progress and Utkal capacity to reach 2.0 Mt
- Increased focused on Value Added Products (VAP) to be further de-linked to the global aluminium prices.

Weakness

- Commodity product with a smaller share of VAP currently
- Upstream business linked to LME volatility

Opportunities

- Immense headroom for a growing market in India; Aluminium consumption in India at 1/12th of global average
- Rising Aluminium penetration in Building & Construction, Automotive, Packaging, and Transportation bodes well for growing VAP demand
- Substitution opportunity versus steel, uPVC, wood, among others.

Threats

- LME, forex and raw material price volatility
- Competition from China
- The threat of rising imports of scrap and other VAP to India from the Free Trade Agreement (FTA) countries
- Domestic availability/ shortage of resources like coal and bauxite

NOVELIS

Strengths

- Global presence - across nine countries, enabling global play with marquee customers
- Market leader in Can and Automotive FRP products
- The Aleris acquisition gave Novelis entry in the high-end aerospace segment providing further product diversification.
- ~61% share of recycling in Novelis portfolio - cost competitiveness
- The strategy of deploying healthy cash flows to strategic expansions and staying ahead of the market

Weakness

- Lack of access to Shanghai Futures Exchange (SHFE) metal in China
- China price competitiveness in the Speciality market

Opportunities

- Growing penetration of aluminium cans for beverage and food packaging in emerging markets
- The growing automotive market is driven by EVs, energy efficiency and light-weighting focus across the globe
- Entry in the Aerospace, Defence and High-end specialities segments with the acquisition of Aleris

Threats

- Increasing tariffs and protectionist measures
- Cost Competitiveness in China
- Price erosion on account of growing competition
- The pace of recovery from COVID-19 pandemic in the automotive and aerospace sectors

COPPER

Strengths

- A balanced portfolio of revenue streams to tide through volatile market
- Secured concentrate supply via long term contracts with miners
- Increased focused on VAP

Weakness

- Import dependence for Copper concentrate supplies

Opportunities

- Immense headroom for growth due to lower consumption vs global average

Threats

- Mine disruptions
- Duties & FTAs – trade policies

2.2 Operational Performance & Financial Review

Financial Table: Standalone and Consolidated

(₹ Crore)

Description	Standalone		Consolidated	
	FY 2020-21	FY 2019-20	**FY 2020-21**	FY 2019-20
Revenue from Operations	42,701	40,242	1,31,985	1,18,144
Earning Before Interest, Tax and Depreciation (EBITDA)				
Novelis*			12,727	10,435
Aluminium			4,855	3,749
Copper (including DHIL)			716	1,276
Other Segments			26	(38)
Unallocable Income/ (Expense) - (Net) & GAAP Adjustments			572	114
Total EBITDA	**4,884**	4,403	**18,896**	15,536
Depreciation & Amortisation (including impairment)	1,848	1,708	6,766	5,135
Finance Cost	1,469	1,679	3,738	4,197
Earning before Exceptional Items, Tax & Share in Profit/ (Loss) in Equity accounted Investments	**1,567**	1,016	**8,392**	6,204
Share in Profit/ (Loss) in Equity Accounted Investments (Net of Tax)	-	-	5	4
Earning before Exceptional Items and Tax	1,567	1,016	8,397	6,208
Exceptional Income/ (Expenses) (Net)	7	(64)	(492)	(284)
Profit Before Tax (After Exceptional Items)	1,574	952	7,905	5,924
Tax Expense	581	332	2,723	2,157
Profit/ (Loss) from Continuing Operations	993	620	5,182	3,767
Profit/ (Loss) from Discontinued Operations	-	-	(1,699)	-
Profit/ (Loss) After Tax	**993**	620	**3,483**	3,767

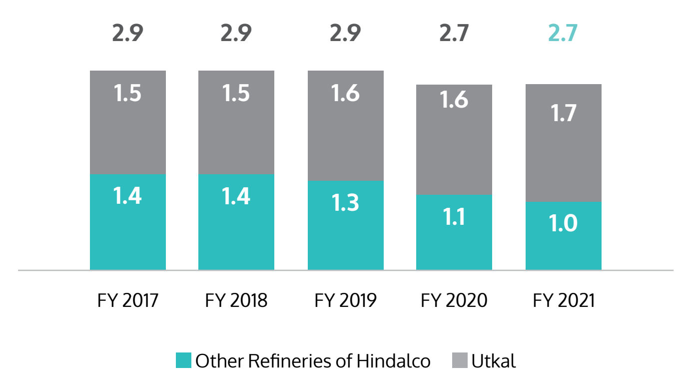
* As per US GAAP

Hindalco Aluminium Business Review

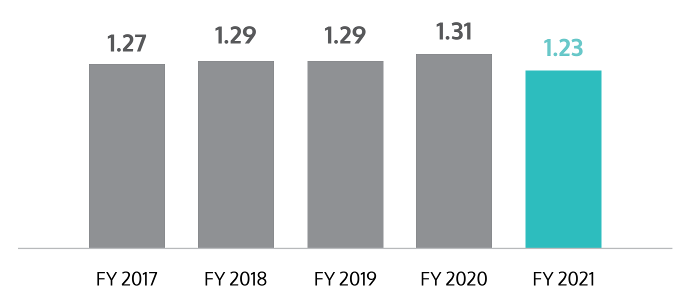
2.2.1 Operational Overview – Aluminium

The Company delivered a stable operational performance in its aluminium business in FY 2020-21, despite the challenging business environment. The Production and sales of Aluminium were impacted in the Q1 of FY 2020-21 on account of COVID-19. The production of Aluminium stood at 1.229 million tons in FY 2020-21 versus 1.314 million tons in the corresponding year. The Overall Alumina production stood at 2.699 million tons versus 2.735 million tons in FY 2019-20. Overall metal sales in all forms were at 1.250 million tons in FY 2020-21 versus 1.290 million tons in FY 2019-20, mainly due to lower sales in Q1 of FY 2020-21 on account of lockdown. Utkal Alumina also recorded production of 1.667 million tons and continues to be the most economical and efficient alumina producer globally, running at maximum capacity to produce 1.6 million tons of world-class alumina and providing strong support to most of Hindalco's India smelting facilities, leading to better cost optimisation and quality input (Alumina). Production of VAP excluding wire rods was flat YoY, at 270 Kilo tons in FY 2020-21.

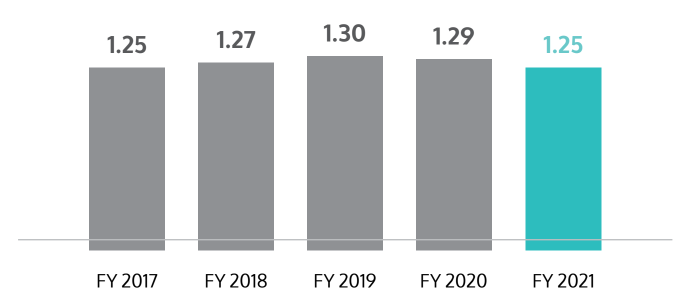
Alumina Production (Million Tonnes)



Metal Production (Million Tonnes)



Metal Sales in all forms (Million Tonnes)*



* including wire rods amd other value added products

2.2.2 Financial Overview

Aluminium

Revenue for Hindalco's aluminium business (excluding Novelis) was ₹20,495* crore in FY 2020-21, from ₹21,804* crore in FY 2019-20, down 6%. EBITDA was at ₹4,855 crore versus ₹3,749 crore a year earlier, up 30% on account of favourable macros and lower input costs. The EBITDA margins were at 24% in FY 2020-21, one of the best in the industry.

(*The above numbers are without elimination of Inter-segment revenue)

(₹ Crore)

Description	FY 2020-21	FY 2019-20	% Change
Revenue	20,495	21,804	-6%
EBITDA	4,855	3,749	30%

Note: In the consolidated financial statements, within the aluminium segment, the significant entries are Hindalco and Utkal Alumina International Ltd. Since Utkal Alumina is a wholly-owned subsidiary of Hindalco and supplies a substantial quantity of its production to Hindalco, we have analyzed the combined performance of Hindalco's aluminium business along with Utkal Alumina.

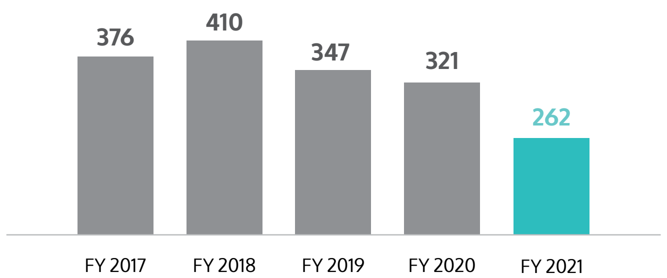
2.3 Copper Business Review

2.3.1 Operational Overview

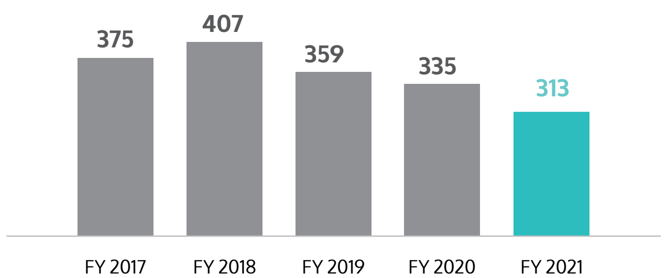
The copper operations as well as the domestic market was impacted by the lockdown in Q1 of FY 2020-21 due to COVID-19. The copper cathode production was 262 Kt in FY 2020-21, down 19% versus the last year. Copper rod production was at 235 Kt in FY 2020-21 versus 263 Kt in FY 2019-20. Di-Ammonium Phosphate (DAP) plant was under maintenance during the year for up-gradation from April 2020.

Total Copper Metal Sales was at 313 Kt in FY 2020-21, down by 6% compared to 335 Kt in the previous year due to lower production. The sales of Copper VAP (Copper Rods) were down by 9% at 233 Kt in FY 2020-21 versus 257 Kt in the previous year. The share of VAP (CC Rods) to Total metal sales was 74% in FY 2020-21, from 77% in the previous year.

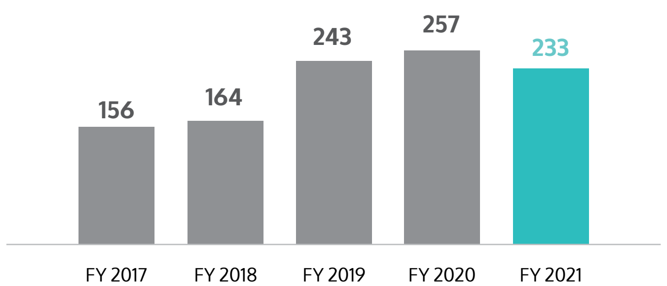
Cathode Production (Kt)



Copper Metal Sales in All Forms (Kt)



Copper VAP - CC Rod Sales (Kt)



2.3.2 Financial Overview

Copper Business (including DHIL) revenue for FY 2020-21 was at ₹22,446* Crore (vs. ₹18,533* crore in FY 2019-20), up by 21% due to higher prices of Copper in the latter half of the financial year. EBITDA fell 44% at ₹716 crore (vs. ₹1,276 crore in FY 2019-20) on account of lower volumes, lower Tc/Rc and by-product realisations in FY 2020-21 during the year.

*The above numbers are without elimination of Inter-segment revenue

(₹ Crore)

Description	FY 2020-21	FY 2019-20	% Change
Revenue	22,446	18,533	21%
EBITDA	716	1,276	-44%

2.4 Novelis Business Review

2.4.1 Operational Overview

Novelis Inc., with the acquisition of Aleris in FY 2020-21, is the global leader of Flat-Rolled aluminium products and also the world's largest recycler of Aluminium. Driven by its purpose of shaping a sustainable world together, Novelis works alongside its customers to provide innovative solutions to the beverage can, automotive, aerospace, Building & Construction(B&C), and speciality markets (which includes foil packaging, certain transportation products, architectural, industrial, and consumer durables). Novelis operates an integrated network of technically advanced rolling and recycling facilities across North America, South America, Europe, and Asia, and leverages its global manufacturing and recycling footprint to consistently deliver high-quality products around the world.

Novelis reported yet another year of its best-ever financial performance despite a challenging business environment. It recorded best-ever adjusted EBITDA and EBITDA per ton in FY 2020-21 along with Aleris integration. The performance was mainly driven by its portfolio optimisation, better cost efficiencies, favourable product mix, innovations, customer centricity and favourable demand for lightweight, sustainable aluminium solutions across end markets. Novelis leveraged its extensive recycling footprint and favourable market conditions to increase recycled content in its shipments to 61% in FY 2020-21.

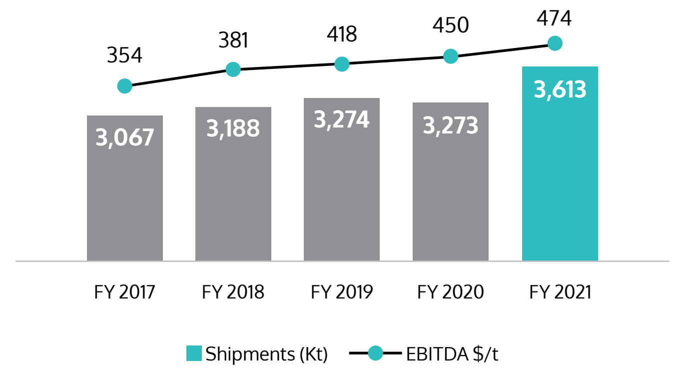
In FY 2020-21, the total shipments, including Aleris was up by 10% over the last year to 3.613 million tons. Share of beverage can sheet shipments were 60% in FY 2020-21, automotive body sheet shipments were at 16% in FY 2020-21, despite market challenges in the initial quarter of FY 2020-21 due to the lockdown on account of the COVID-19 pandemic. The Specialities and Aerospace shipments were 22% and 2% respectively in FY 2020-21.

Novelis operates in four key geographies: North America, Europe, Asia and South America. In North America, in FY 2020-21, total shipments were 1,348 Kt. Novelis' 200 Kt automotive finishing facility in Guthrie, Kentucky in the US, has commissioned during FY 2020-21 to cater to the growing automotive demand in this region.

In Europe, the Company shipped 948 Kt across product categories in FY 2020-21. In Asia, Novelis shipped 740 Kt of rolled products versus 711 Kt in FY 2019-20. Its automotive finishing line expansion project of 100 Kt has commissioned in FY 2020-21. In South America, Novelis shipped 577 Kt in FY 2020-21, up from 559 Kt in the prior year.

In FY 2020-21, Novelis reported a record overall adjusted EBITDA/ton of $474, up from $450/ton in the last year, reflecting a strong and consistent performance year after year.

Shipments (Kt) and EBITDA $/ton



With Novelis' thrust on sustainability and recycled Aluminium, the share of recycled inputs was at 61% in FY 2020-21. The Company has invested significantly in recycling initiatives and developed high-tech recycling capabilities over the years. Its new 100 kt rolling, casting, and 60 Kt recycling expansion projects in Pinda, Brazil is expected to be commissioned in FY 2021-22, which will add to the overall rolling capacity of the Company.

2.4.2 Financial Overview

Novelis' net sales in FY 2020-21 were at $12.3 billion, up 9%, mainly driven by higher shipments, as well as higher aluminum prices and local market premiums. Adjusted EBITDA stood at a record high of $1.714 billion, up 16%, on the back of portfolio optimisation, favourable metal prices, better cost efficiencies and favourable foreign exchange and contribution by the acquired businesses of Aleris in FY 2020-21. Aleris business contributed around $200 million EBITDA in FY 2020-21. Novelis reported free cash flow from continuing operations of $740 million driven by stronger adjusted EBITDA and lower capital expenditures. Net Income (without Exceptional Items) from continuing operations stands at US$561 million in FY 2020-21 versus $590 million in FY 2019-20.

($ Million)

Description	FY 2020-21	FY 2019-20	% Change
Net Sales	12,276	11,217	9%
Adjusted EBITDA	1,714	1,472	16%
Net Income/ (loss) w/o Special Items*	561	590	-5%

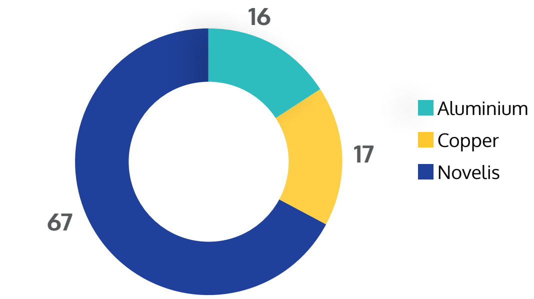
*Tax-effected special items may include restructuring & impairment, metal price lag, gain/loss on assets held for sale, loss on extinguishment of debt, loss/gain on sale of business

3. Consolidated Financial Statements

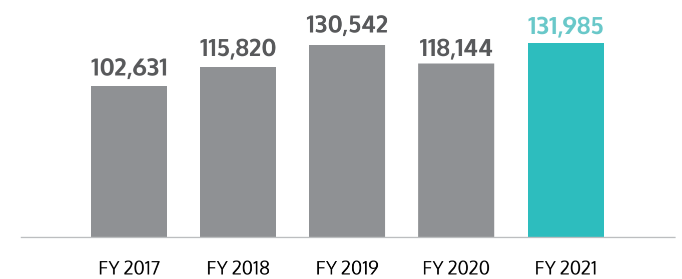
3.1 Revenue

Hindalco's consolidated revenue was at ₹1,31,985 crore in FY 2020-21 compared to ₹1,18,144 crore in FY 2019-20, up by 12% mainly due to higher global aluminium prices and local market premiums. Below is the split of Revenue by businesses in FY 2020-21 and the trend of revenues over the last five years.

Revenue split by business for FY 2020-21 (%)



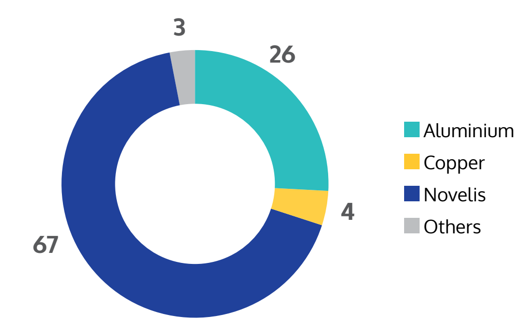
Revenue (₹ Crore)



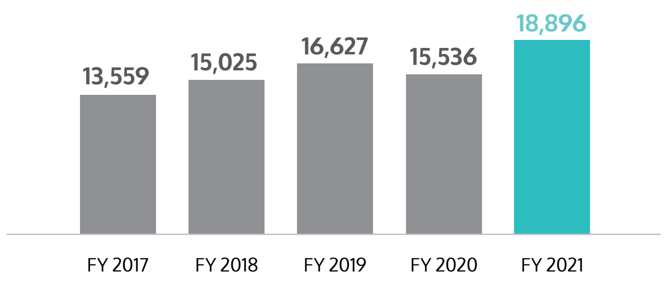
3.2 EBITDA

Consolidated EBITDA FY 2020-21 was higher by 22% to ₹18,896 crore from ₹15,536 crore in the previous year. This was due to higher EBITDA in the aluminium business in India and best-ever performance by Novelis in FY 2020-21. The EBITDA margin in FY 2020-21 was better at 14% compared to 13% in FY 2019-20. The below graph shows the EBITDA split by businesses in FY 2020-21 and the EBITDA trend of the last five years.

EBITDA split by business: FY 2020-21 (%)



EBITDA (₹ Crore)



3.3 Finance Cost

Finance Cost decreased by 11% at ₹3,738 crore in FY 2020-21 from ₹4,197 crore in FY 2019-20 due to lower interest cost of long term loans in India and refinancing of term loans by Novelis during the year. Novelis refinanced $1.1 billion of $1.7 billion 2017 term loans via New $500 million 2021 secured term loan due 2028, New €500 million 3.375% senior unsecured green bond in Europe (~US$588 million) due 2029. The balance 2017 term loan is to be repaid by Novelis before maturity in FY 2021-22.

3.4 Depreciation and amortisation (including net impairment loss/(reversal) of non-current assets)

Depreciation and amortisation (including net impairment loss/(reversal) of non-current assets) increased to ₹6,766 crore in FY 2020-21 from ₹5,135 crore in FY 2019-20 mainly on account of the addition of Aleris business, capitalisation and certain reclassifications as per the accounting standards and exchange impact.

3.5 Exceptional Income/(Expense)

The total exceptional expense (net) of ₹492 crore in FY 2020-21 was majorly on account of ₹395 crore charitable donation by the Company to support COVID-19 pandemic relief measures and ₹131 crore related to employee severance cost pursuant to restructuring program in a manufacturing unit in Novelis Germany. The exceptional income of ₹127 crore was on account of Renewable Energy Certificates (REC) recognised during the period after approval received from Odisha Electricity Regulatory Commission (OERC) permitting adjustment of excess REC purchased during earlier years against future Renewable Power Obligation (RPO) and reversal of excess Renewable Power Obligation (RPO) provision related to FY 2019-20 after Madhya Pradesh Electricity Regulatory Commission (MPERC) order.

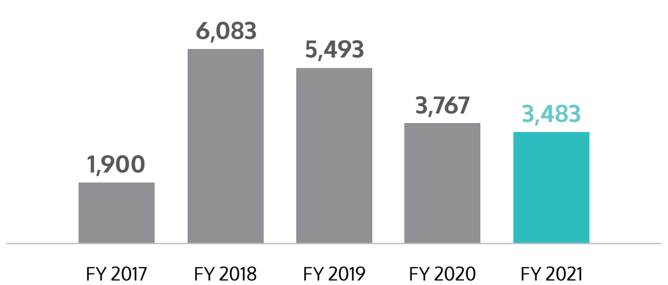
3.6 Taxes

Provision for the tax was at ₹2,723 crore in FY 2020-21 against ₹2,157 crore in FY 2019-20. This increase in taxes was due to higher taxes in Novelis and also higher profitability of the Company in FY 2020-21.

3.7 Profit/(Loss) after tax

Profit After Tax (PAT) in FY 2020-21 was at ₹3,483 crore compared to ₹3,767 crore a year ago. FY 2020-21 PAT includes one time loss of ₹1,699 crore on account of discontinued operations related to divestments of automotive assets of Aleris in FY 2020-21. The net profit margin in FY 2020-21 stands at 2.6% versus 3.2% in FY 2019-20. The PAT for Continuing operations for FY 2020-21 was up 38% year on year at ₹5,182 crore versus FY 2019-20.

Profit After Tax (₹ Crore)



3.8 Consolidated Net Debt to EBITDA

The consolidated balance sheet continued to remain strong, with the Net Debt to EBITDA at 2.59 times at the end of March 2021 versus 2.61 times at the end of March 2020.

3.9 Key Financial Ratios (Consolidated)

(i) Debtors Turnover (Days)

The Consolidated Debtors Turnover Days on March 31, 2021 improved to 31 days compared to 32 days at the end of March 31, 2020. This shows consistency in managing its credit with customers and this also reflects the Company's strong financial position with respect to most of its customers. The Debtor Turnover (days) is calculated as Average Debtors / Total Consolidated Sales multiplied by 365 days.

(ii) Inventory Turnover (Days)

The Consolidated Inventory Turnover Days on March 31, 2021 was little higher at 80 days versus 75 days at the end of March 31st, 2020. This shows how the Company managed its inventory levels during the year. The Inventory (days) is calculated as Average Inventory / Cost of Goods Sold (Cost of Sales + Depreciation) multiplied by 365 days.

(iii) Interest Coverage Ratio:

The Consolidated Net Interest Coverage Ratio as on March 31, 2021 stands at 5.06 times versus 3.70 times at the end of March 31, 2020. This is higher over the previous year because of higher earnings (EBIT) and lower interest and finance charges in FY 2020-21 on account of lower interest rates in India compared to last year and refinancing of long term loans in Novelis. This ratio reflects the Company's ability and strength to meet its interest obligations.

(iv) Current Ratio

The Consolidated Current/Liquidity Ratio as on March 31, 2021 stands at 1.39 times versus 1.78 times at the end of March 31, 2020 reflecting the Company's strengthening of liquidity or solvency position compared to the last year.

(v) Debt to Equity Ratio

The Consolidated Debt to Equity Ratio as on March 31, 2021 stands well below 1.0 at 0.99 times versus. 1.15 times as on March 31, 2020. This reflects the Company' strong balance sheet and ability to meet its current short-term obligations.

(vi) Return in Net Worth (RONW)

The Consolidated Return on Net Worth as on March 31, 2021 stands at 5.58% compared to 6.51% as at March 31, 2020. This was lower compared to the previous year due to the lower profits due to the impact of one-time loss on account of discontinued operations of ₹1,699 crore in FY 2020-21. RONW based on PAT for continuing business stands at 8.30% in FY 2020-21.

(vii) Operating Margins

The Consolidated Operating margins in FY2020-21 stands at 13.39% versus 12.15% in FY2019-20 reflecting higher operating profit in FY2020-21 compared to the previous year. (Operating Margin = Operating Profit/Net Sales)

(viii) Net Profit Margins

The Consolidated Net profit margins in FY 2020-21 stands at 2.64% versus 3.19% in FY 2019-20. This was lower on account of one-time loss of discontinued operations in FY2020-21 of ₹ (1,699) crore. The Consolidated Net Profit Margins for Continuing operations stands at 3.93% in FY2020-21. (Net Profit Margin = Net Profit/Net Sales)

3.10 Consolidated Cashflow:

Cash generated from operations for Hindalco Consolidated stands at ₹17,232 crore in FY 2020-21 versus ₹12,745 crore in FY 2019-20.

The table below shows the comparative movement of Cash flows:

(₹ Crore)

Particulars	Consolidated Year ended 31-03-2021	Consolidated Year ended 31-03-2020
Cash Flow from Operating Activities		
Operating Cashflow before working capital changes	17,764	13,945
Changes in working capital	1,404	(1,098)
Cash generated from operations before Tax	**19,168**	**12,847**
(Payment)/Refund of Direct Taxes	(1,256)	(102)
Net Cash generated/ (used) -Operating Activities - Continuing Operations	17,912	12,745
Net Cash Generated/ (Used) - Operating Activities - Discontinued Operations	(680)	-
Net Cash Generated/ (Used) - Operating Activities (a)	**17,232**	**12,745**
Cash Flow from Investment Activities		
Net Capital Expenditure	(5,517)	(6,858)
Disposal of Investments in Subsidiaries (Net)	-	25
(Purchase) / Sale of treasury instrument (Net)	(2,775)	(1,578)
Acquisition of business, net of cash acquired	(19,524)	-
Investment in equity accounted investees	-	(3)
Loans & Deposits (given) / received back (Net)	(261)	266
Interest and dividends received	228	331
Investment in Equity Shares at FVTOCI	(43)	(653)
Others	10	43
Net Cash Generated/ (Used) - Investing Activities - Continuing Operations	(27,882)	(8,427)
Net Cash Generated/ (Used) - Investing Activities - Discontinued Operations	2,245	-
Net Cash Generated/ (Used) - Investing Activities (b)	**(25,637)**	**(8,427)**
Cash Flow from Financing Activities		
Equity Raised / Debentures Redeemed	2	4
Treasury shares acquired by ESOP Trust	-	(7)
Net Debt inflows	(968)	10,949
Interest & Finance Charges paid	(3,678)	(3,970)
Dividend Paid (including Dividend Distribution Tax)	(222)	(320)
Net Cash generated/ (Used) - Financing Activities - Continuing Operations	(4,866)	6,656
Net Cash Generated/ (Used) - Financing Activities - Discontinued Operations	(16)	-
Net Cash Generated/ (Used) - Financing Activities (c)	**(4,882)**	**6,656**
Net Increase/(decrease) in Cash and Cash Equivalents (a) +(b) + (c)	**(13,287)**	**10,974**

4. Business Outlook

Hindalco continued to deliver yet another strong and resilient performance across all the business segments in India as well as overseas, while maintaining safe and stable operations, as the business is catching up with a sharp recovery of the market, supported by improved macros. The cost competitiveness of Hindalco smelters continues to position it in the first quartile of the global cost curve. The Aleris integration is providing accelerated synergistic benefits, along with a positive EBITDA contribution as we continue to unlock and capture the entire value of this acquisition. This year, Aleris contributed around $200 million to EBITDA, including synergies.

The Company's relentless focus is on product innovation, better efficiencies, complete digitalisation, organic expansions with a diversified product mix and cost competitiveness. The Capacity 500 Kt expansion project at Utkal Alumina refinery will further help in reducing the overall integrated cost of production going forward. The Company continues to focus on cash conservation while maintaining adequate liquidity and deliver sustained performance despite challenges on account of COVID-19 pandemic. The Company's long-term strategic investments in Novelis and the India downstream expansion projects will enhance its capabilities across the FRP and the Extrusion segments in India. In addition, the acquisition of Aleris by Novelis in FY 2020-21 has provided further product diversification and has strengthened Company's long-term sustainable business model. Novelis' two auto finishing lines, in China and in the US with rolling, recycling and casting expansions in South America, makes Novelis well positioned to capture the tremendous market opportunity as the industry leader in Aluminium flat rolled products.

The domestic copper demand is largely in the form of rods which is the downstream product for the copper business. Hindalco's strategy of enhancement of Copper VAP capacity in terms of Copper Rods and Copper Inner Grooved Tubes will help the Company drive a larger market share and meet the growing demand for Copper in the domestic market.

Hindalco announced its Capital Allocation Framework with a guidance for the next five years with respect to broad allocation of its consolidated operating cashflows after meeting maintenance capex and working capital requirement. The key focus of this framework is on pursuing profitable growth opportunities via organic expansions in both India downstream as well as Novelis, strengthening the Balance Sheet through deleveraging, creating clear road map for ESG and overall shareholders value enhancement/ distributions of returns.

5. Price Risk Management

Hindalco's financial performance was significantly impacted by fluctuations in prices of Aluminium, exchange rates and interest rates. The Company takes a structured approach to the identification, quantification and hedging of such risks by using derivatives in commodity and currency, which is driven by the Company's comprehensive risk management policy.

Details of our initiatives and performance are provided in the section on 'Our Capitals' in the report.

6. Sustainability

Continuing to focus on aspects related to environment and safety, we have embarked on our journey of value creation and integrating sustainability concerns throughout our value chain. Aligning our approach with the elements of People, Planet and Prosperity, we are progressing to nurture our business growth with emphasising on building a greener, stronger and smarter business. Taking the next step on our journey of setting a benchmark for the aluminium industry, we have set strategic priorities to further strengthen our sustainability goals. With strong ESG commitment being a part of our strategic priority, we aim to build an organisation that works towards reducing its environmental footprints as well as providing a safe work environment for its people.

Our Hindalco Sustainability Committee, led by the Managing Director, helps us to keep track of our performance and carry out periodic reviews to identify areas of improvement. Further, we have a task forces at the plant level which work on initiatives related to energy, water, waste, and air quality management. Due to our energy-intensive operations, it becomes imperative on us to adopt efficient ways of using energy. Our constant focus on energy conservation has led us to achieve a renewable energy capacity of 49 MW and also, we have undertaken a target of 100 MW by FY 2022.

As energy consumption has a direct impact on the carbon footprint, we have also set a goal to achieve 'Net Zero Carbon' by 2050. Water management also forms an important part of our sustainability agenda and we have set a target to achieve 20% reduction in our specific freshwater consumption by 2025. Our waste initiative 'Value from Waste' is directed towards the reduction of waste generation and maximising waste utilisation. Furthering this initiative, our aim is to achieve zero waste to landfill by 2030. Our progress towards a greener, stronger, smarter future will be led by our employees, for whom we strive to provide a safe work environment and ensure their holistic development. Our robust HR Management Framework is helping us to achieve this goal. We plan to achieve our objective of 'Zero Harm' across the organisation in the near future.

Ensuring the integration of sustainability efforts throughout our value chain, we have developed a framework for supplier assessment through which suppliers are assessed based on key environmental aspects. This helps us to ensure effective managment of our environmental footprint. In our efforts to strengthen our ties with our communities, we undertake various community development initiatives and engage periodically through our community consultation programs.

Details of our initiatives and performance are provided in the section on 'Our Capitals' in the report.

7. Safety

As a responsible corporate citizen, Hindalco is fully dedicated to human health and safety, and it is our topmost priority. Our plants and mines follow occupational health and safety management standards that integrate safety responsibilities into everyday business. Strong safety culture is required to prevent fatalities and achieve good safety performance. With focused efforts to further strengthen our safety culture, our safety performance this year has been better than the past two years. That said, we also deeply regret losing two contract workmen to work related injuries. We shall continue to focus on various elements of safety culture to make Hindalco a 'Zero Harm' organisation.

During the year, we introduced an e-permit system. We also introduced the Serious Injuries and Fatality. With this standard, we have now 9 technical safety standards, 4 occupational health standards and 8 administrative safety standards. Our standards and procedures provide a consistent approach to managing major hazards across our operations. To meaningfully implement the standards, we developed 300 subject matter experts (SME). This is in addition to the 866 SMEs developed in the last couple of years. Every year we audit our entire operations against our standards and require our businesses to meet their health and safety performance requirements and targets. The audits for all 15 manufacturing sites of Hindalco were conducted virtually using "RealWare". In addition, we conducted risk reviews of all activities (51000 plus) having manual interventions.

Despite limitations on classroom safety training due to COVID-19, this year too we could invest 3 man hours per person (including direct employees and contract workmen). We focused more on-the-job training and, wherever, possible conducted virtual trainings. COVID-19 accelerated the digital transformation of our health and safety activities. More than 60 virtual training were conducted during the year with the help of Hindalco Technical University. We started using new BBS module incorporated in "Enablon" to report safety interventions and behaviour-based safety observations.

We have devised many platforms in the form of safety taskforces and subcommittees for each employee to participate in various safety programs. All employees have deemed safety officers and contribute to the safety of the units and mines at every level.

In the year 2020, we completed Qualitative Exposure Assessment (QlEA) and Quantitative Exposure Assessment (QnEA) studies of all our manufacturing facilities as well as mining operations. Currently, we are in advanced stages of implementing all the recommendations made in these studies.

In 2020, the Company also initiated an offering of psychological safety training sessions to employees. In addition, looking at health needs, the Company at each unit also maintained a comprehensive wellness program, catering to employees, their families and our communities.

Hindalco has an active Crisis Management Plan at the corporate, plant and mines level to ensure appropriate response to all natural disasters or other emergencies, including COVID-19.

8. Human Capital

With around 25,000 direct employees in India and another 12,500 outside the country, people are at the centre of driving excellence at Hindalco. The Aditya Birla Group is one of the most preferred employers in the country which enables us to attract the required talent and retain them.

Keeping in mind the new normal, we are constantly working on our Employee Value Proposition and innovating our programs and interventions for holistic employee development. We swiftly moved our human interventions in a way that enabled and supported employees to perform during the change. A series of online programs on behavioural/leadership and functional/technical aspects were supported by digital capability building initiatives. We have extended our Potential Assessment process to a larger employee population now to create a bigger talent pool and provide career opportunities. We have strengthened our partnership with the business with the HR Business Partners working closely on talent management, capability building, driving performance and strategic projects with them. This year we have made our performance management process digital by introducing a digital tool for normalisation. We have also focused on increased development conversation as well as regular feedback. We have been closely working on increasing employee engagement and building an open, transparent and inclusive culture by working extensively on action plans based on the results of our employee engagement survey.

Details of our initiatives and performance are provided in the section on 'Our Capitals' in the report.

9. Internal controls

A strong culture of Internal Controls is pervasive throughout the Group. Regular internal audits at all locations are undertaken to ensure that the highest standard of Internal Controls is maintained. The effectiveness of a business' internal control environment is a component of senior management performance appraisals. The principal aim of the system of internal control is the management of business risks, with a view on enhancing shareholder value and safeguarding the Group's assets. It provides reasonable assurance on the internal control environment and against material misstatement or loss.

Cautionary Statement

Statements in this "Management Discussion and Analysis" describing the Company's objectives, projections, estimates, expectations or predictions may be "forward looking statements" within the meaning of applicable securities laws and regulations. Actual results could differ materially from those expressed or implied. Important factors that could make a difference to the Company's operations include global and Indian demand supply conditions, finished goods prices, feedstock availability and prices, cyclical demand and pricing in the Company's principal markets, changes in the government regulations, tax regimes, economic developments within India and the countries within which the Company conducts business and other factors such as litigation and labour negotiations. The Company assumes no responsibility to publicly amend, modify or revise any forward looking statements, on the basis of any subsequent development, information events or otherwise.

FINANCIAL HIGHLIGHTS - CONSOLIDATED

(₹ Crore)

PROFITABILITY	2020-21@ US$ in Mn *	2020-21@	2019-20@	2018-19@	2017-18@	2016-17@	2015-16@	2014-15	2013-14	2012-13	2011-12
Sales and Operating Revenues	17,779	131,985	118,144	130,542	115,820	102,631	101,202	106,696	90,007	82,243	82,549
Less: Cost of Sales	15,398	114,311	103,794	115,042	101,899	90,183	92,387	97,751	81,721	74,406	74,365
Operating Profit	2,381	17,674	14,350	15,500	13,921	12,448	8,815	8,944	8,286	7,837	8,184
Other Income	165	1,222	1,186	1,127	1,105	1,111	1,189	1,105	1,017	1,012	783
Less: Depreciation, Amortization and Impairment	911	6,766	5,135	4,766	4,607	4,469	4,507	3,591	3,553	2,861	2,864
Less: Interest and Finance Charges	504	3,738	4,197	3,778	3,911	5,742	5,134	4,178	2,702	2,079	1,758
Profit before Share in Equity Accounted Investments, Exceptional Items and Tax	1,131	8,392	6,204	8,083	6,508	3,348	362	2,280	3,049	3,909	4,345
Share in Profit/ (Loss) in Equity Accounted Investments (Net of Tax)	1	5	4	-	(125)	(25)	172	175	67	(16)	50
Profit before Tax and Exceptional Items	1,132	8,397	6,208	8,083	6,383	3,323	534	2,455	3,116	3,893	4,395
Exceptional Income/(Expenses) (Net)	(66)	(492)	(284)	-	1,774	(8)	(577)	(1,940)	(396)	-	-
Profit/ (Loss) before Tax from Continuing Operations	1,066	7,905	5,924	8,083	8,157	3,315	(43)	515	2,720	3,893	4,395
Less: Tax Expenses	367	2,723	2,157	2,588	2,074	1,433	498	256	525	886	786
Profit/ (Loss) from Continuing Operations	699	5,182	3,767	5,495	6,083	1,882	(541)	258	2,195	3,007	3,608
Profit/ (Loss) from Discontinued Operations (Net of Tax)	(229)	(1,699)	-	-	-	-	(161)	-	-	-	-
Profit/ (Loss) before Non-Controlling Interest	470	3,483	3,767	5,495	6,083	1,882	(702)	258	2,195	3,007	3,608
Less: Non-Controlling Interest in Profit/ (Loss)	-	-	-	(1)	-	(18)	(451)	(596)	20	(20)	211
Net Profit/ (Loss) for the Period	470	3,483	3,767	5,496	6,083	1,900	(251)	854	2,175	3,027	3,397
Business Reconstruction Reserve (BRR) #											
Expenses adjusted against BRR (Net of Tax)	-	-	-	-	-	-	682	97	86	-	500
Profit/ (Loss) for the Period had the expenses not adjusted against BRR	470	3,483	3,767	5,496	6,083	1,900	(933)	757	2,089	3,027	2,896

FINANCIAL POSITION

FINANCIAL POSITION	2020-21@ US$ in Mn *	2020-21@	2019-20@	2018-19@	2017-18@	2016-17@	2015-16@	2014-15	2013-14	2012-13	2011-12
Gross Fixed Assets (excluding CWIP)	21,470	157,052	140,334	130,142	125,094	121,186	123,522	101,940	87,914	60,054	53,961
Capital Work-in-Progress (CWIP) **	1,395	10,202	7,721	4,098	2,063	1,814	4,214	14,111	23,059	33,834	22,798
Less: Accumulated Depreciation, Amortization and Impairment	7,763	56,783	51,139	44,283	40,006	36,499	37,849	29,981	26,750	22,126	18,661
Net Fixed Assets	15,102	110,471	96,916	89,957	87,151	86,501	89,887	86,070	84,223	71,763	58,098
Investments	2,342	17,133	9,411	9,012	10,781	15,157	12,438	12,346	12,961	12,601	10,551
Other Non-Current Assets /(Liabilities) (Net)	(1,612)	(11,794)	(12,407)	(9,581)	(8,497)	(6,737)	(8,859)	(7,235)	(6,924)	(6,573)	(5,758)
Net Current Assets	2,285	16,711	31,664	20,538	17,499	14,961	15,074	16,571	18,289	16,901	11,771
Capital Employed	18,117	132,521	125,584	109,926	106,934	109,882	108,540	107,752	108,549	94,692	74,662
Less: Loan Funds	9,020	65,978	67,257	52,416	52,074	63,817	67,552	68,467	66,163	57,603	41,042
Less: Non-Controlling Interest	1	10	10	9	9	6	381	956	1,781	1,759	1,709
Net Worth	9,096	66,533	58,317	57,501	54,851	46,059	40,607	38,329	40,605	35,330	31,911

(₹ Crore)

	2020-21@ US$ in Mn*	2020-21@	2019-20@	2018-19@	2017-18@	2016-17@	2015-16@	2014-15	2013-14	2012-13	2011-12
Net Worth represented by :											
Equity Share Capital	30	222	222	222	223	223	205	207	206	191	191
Other Equity:											
Share Warrants	-	-	-	-	-	-	-	-	6	541	541
Equity Component of Compound Financial Instruments	1	4	4	4	4	4	3	-	-	-	-
Reserves and Surplus	8,164	59,717	55,577	52,599	47,644	41,770	36,443	38,122	40,393	34,597	31,179
Other Comprehensive Income	901	6,590	2,514	4,676	6,980	4,062	3,956	-	-	-	-
	9,096	66,533	58,317	57,501	54,851	46,059	40,607	38,329	40,605	35,330	31,911

RATIOS AND STATISTICS

	Unit	2020-21@	2019-20@	2018-19@	2017-18@	2016-17@	2015-16@	2014-15	2013-14	2012-13	2011-12
Operating Margin	%	13.39	12.15	11.87	12.02	12.13	8.71	8.38	9.21	9.53	9.91
Net Margin	%	2.64	3.19	4.21	5.25	1.85	(0.25)	0.80	2.42	3.68	4.12
Gross Interest Cover ^	Times	4.73	3.57	4.37	3.83	2.36	1.91	1.95	1.85	2.04	3.16
Net Interest Cover	Times	5.06	3.70	4.40	3.84	2.36	1.95	2.41	3.44	4.26	5.10
ROCE	%	9.40	8.83	10.94	9.61	8.32	5.08	5.97	5.66	7.07	9.02
ROE	%	5.58	6.51	9.78	12.06	4.39	(0.64)	2.16	5.73	9.00	11.15
Basic EPS	₹	15.66	16.94	24.67	27.30	9.22	(4.55)	4.14	10.91	15.81	17.74
Diluted EPS	₹	15.65	16.93	24.66	27.29	9.22	(4.55)	4.13	10.91	15.81	17.74
Cash EPS ^^	₹	46.07	40.03	46.07	47.98	30.91	20.78	21.53	28.73	30.75	32.70
Capital Expenditure (Cash outflow)	₹ Crore	5,565	6,791	6,005	3,001	2,938	4,245	5,978	9,424	11,871	12,512
Debt Equity Ratio	Times	0.99	1.15	0.91	0.95	1.39	1.66	1.79	1.63	1.63	1.29
Book value per Share	₹	296.07	259.56	256.07	244.33	205.32	196.64	185.61	196.67	184.53	166.68

* Balance Sheet items are translated at closing exchange rate and Profit and Loss items are translated at average exchange rate.

** Including Intangible assets under development.

\# Financial restructuring scheme formulated by the Company under the provisions of the Companies Act, approved by the Bombay High Court, to deal with various costs associated with its organic and inorganic growth plan.

@ Figures for FY 2020-21, FY 2019-20, FY 2018-19, FY 2017-18, FY 2016-17 and FY 2015-16 are as per Ind AS compliant financial statements. Previous periods figures are as per Previous GAAP financial statements.

^ Gross interest coverage ratio is calculated as Operating Profit plus Other Income divided by Interest and Finance Charges plus Finance costs transferred to Capital Work-in-Progress/ Intangible Assets under development.

^^ Cash EPS is calculated as Profi t/ (Loss) for the year plus Depreciation, Amortization and Impairment divided by Weighted average numbers of equity shares.

FINANCIAL HIGHLIGHTS - STANDALONE

(₹ Crore)

PROFITABILITY	2020-21@ US$ in Mn*	2020-21@	2019-20@	2018-19@	2017-18@	2016-17@	2015-16@	2014-15	2013-14	2012-13	2011-12
Sales and Operating Revenues	5,752	42,701	40,242	45,749	43,446	39,383	36,713	36,869	30,101	28,070	28,297
Less: Cost of Sales	5,182	38,467	36,578	41,503	38,322	34,569	33,367	33,453	27,609	25,866	25,192
Operating Profit	570	4,234	3,664	4,246	5,124	4,814	3,346	3,417	2,492	2,204	3,105
Other Income	88	650	739	940	948	1,005	979	882	1,124	983	616
Less: Depreciation, Amortization and Impairment	249	1,848	1,708	1,693	1,617	1,428	1,282	837	823	704	690
Less: Interest and Finance Charges	198	1,469	1,679	1,683	1,901	2,323	2,390	1,637	712	436	294
Profit before Exceptional Items and Tax	211	1,567	1,016	1,810	2,554	2,068	653	1,825	2,081	2,047	2,737
Exceptional Income/ (Expenses) (Net)	1	7	(64)	-	(325)	85	-	(578)	(396)	-	-
Profit/ (Loss) before Tax from Continuing Operations	212	1,574	952	1,810	2,229	2,153	653	1,247	1,685	2,047	2,737
Less: Tax Expenses	78	581	332	605	793	596	99	322	272	347	500
Profit/ (Loss) from Continuing Operations	134	993	620	1,205	1,436	1,557	554	925	1,413	1,699	2,237
Profit/ (Loss) from Discontinued Operations (Net of Tax)	-	-	-	-	-	-	(2)	-	-	-	-
Profit/ (Loss) for the Period	134	993	620	1,205	1,436	1,557	552	925	1,413	1,699	2,237
Business Reconstruction Reserve (BRR)#											
Expenses adjusted against BRR (Net of Tax)	-	-	-	-	-	-	682	97	86	-	-
Profit/ (Loss) for the Period had the expenses not adjusted against BRR	134	993	620	1,205	1,436	1,557	(130)	828	1,327	1,699	2,237

FINANCIAL POSITION

FINANCIAL POSITION	2020-21@ US$ in Mn*	2020-21@	2019-20@	2018-19@	2017-18@	2016-17@	2015-16@	2014-15	2013-14	2012-13	2011-12
Gross Fixed Assets (excluding CWIP)	6,983	51,080	50,296	48,898	48,264	46,742	43,316	35,434	26,804	15,073	14,478
Capital Work-in-Progress (CWIP)**	234	1,709	1,282	982	737	712	3,079	10,744	17,277	23,605	16,257
Less: Accumulated Depreciation, Amortization and Impairment	2,555	18,690	16,928	15,376	13,900	12,358	11,063	9,374	8,749	7,975	7,328
Net Fixed Assets	4,662	34,099	34,650	34,504	35,101	35,096	35,332	36,804	35,332	30,703	23,407
Investments	4,338	31,731	24,639	25,495	27,025	29,332	27,311	21,251	21,907	20,482	18,087
Other Non-Current Assets/(Liabilities) (Net)	(323)	(2,365)	(2,223)	(1,565)	(708)	516	(1,038)	(1,193)	(1,174)	(751)	(207)
Net Current Assets	892	6,528	11,478	9,658	8,330	9,539	9,230	9,400	8,339	8,409	5,319
Capital Employed	9,569	69,993	68,544	68,092	69,748	74,483	70,835	66,262	64,404	58,843	46,606
Less: Loan Funds	2,724	19,929	23,050	19,534	20,297	27,150	28,676	29,007	27,672	24,871	14,574
Net Worth	6,844	50,064	45,494	48,558	49,451	47,333	42,159	37,255	36,732	33,972	32,032

(₹ Crore)

	2020-21@ US$ in Mn*	2020-21@	2019-20@	2018-19@	2017-18@	2016-17@	2015-16@	2014-15	2013-14	2012-13	2011-12
Net Worth represented by :											
Equity Share Capital	30	222	222	222	223	223	205	207	206	191	191
Other Equity:											
Share Warrants	-	-	-	-	-	-	-	-	-	541	541
Reserves and Surplus	6,058	44,310	43,482	43,285	42,497	41,235	36,568	37,049	36,526	33,240	31,300
Other Comprehensive Income	756	5,532	1,790	5,051	6,731	5,875	5,386	-	-	-	-
	6,844	50,064	45,494	48,558	49,451	47,333	42,159	37,255	36,732	33,972	32,032

RATIOS AND STATISTICS

	Unit	2020-21@	2019-20@	2018-19@	2017-18@	2016-17@	2015-16@	2014-15	2013-14	2012-13	2011-12
Operating Margin	%	9.92	9.11	9.28	11.79	12.22	9.11	9.27	8.28	7.85	10.97
Net Margin	%	2.33	1.54	2.63	3.31	3.95	1.50	2.51	4.70	6.05	7.91
Gross Interest Cover^	Times	3.29	2.62	3.08	3.18	1.73	1.81	1.75	1.50	1.61	3.62
Net Interest Cover	Times	3.32	2.62	3.08	3.19	2.51	1.81	2.63	5.08	7.31	12.67
ROCE	%	4.38	3.94	5.07	6.18	6.04	4.44	5.30	4.53	4.71	7.10
ROE	%	2.08	1.32	2.46	2.97	3.48	1.39	2.50	4.00	5.15	7.25
Basic EPS	₹	4.46	2.79	5.41	6.45	7.56	(0.64)	4.48	7.09	8.88	11.69
Diluted EPS	₹	4.46	2.79	5.41	6.45	7.55	(0.64)	4.48	7.09	8.87	11.68
Cash EPS^^	₹	12.77	10.47	13.01	13.70	14.49	8.95	8.53	11.22	12.55	15.29
Dividend per Share ##	₹	3.00	1.00	1.20	1.20	1.10	1.00	1.00	1.00	1.40	1.55
Capital Expenditure (Cash outflow)	₹ Crore	1,137	1,395	1,263	1,178	1,041	1,399	2,073	3,458	5,531	7,168
Debt Equity Ratio	Times	0.40	0.51	0.40	0.41	0.57	0.68	0.78	0.75	0.73	0.45
Book value per Share	₹	222.84	202.49	216.25	220.28	211.00	204.16	180.41	177.92	177.44	167.31
Market Capitalisation $	₹ Crore	73,433	21,502	46,145	48,166	43,756	18,162	26,638	29,266	17,538	24,774
Number of Equity Shareholders	Nos.	348,471	332,014	304,345	299,521	319,783	392,888	338,655	361,686	441,166	383,724
Number of Employees	Nos.	20,971	22,477	22,865	23,555	23,679	24,118	21,976	20,902	20,238	19,975
Average Cash LME (Aluminium)	US$	1,802	1,749	2,035	2,046	1,688	1,592	1,888	1,773	1,976	2,317
Average Cash LME (Copper)	US$	6,879	5,855	6,337	6,451	5,152	4,852	6,556	7,103	7,855	8,485

* Balance Sheet items are translated at closing exchange rate and Profit and Loss items are translated at average exchange rate.

** Including Intangible assets under development.

Financial restructuring scheme formulated by the Company under the provisions of the Companies Act, approved by the Bombay High Court, to deal with various costs associated with its organic and inorganic growth plan.

Proposed/Interim Dividend for the Period.

@ Figures for FY 2020-21, FY 2019-20, FY 2018-19, FY 2017-18, FY 2016-17 and FY 2015-16 are as per Ind AS compliant financial statements. Previous periods figures are as per Previous GAAP financial statements.

$ including Treasury shares held by the Company.

^ Gross interest coverage ratio is calculated as Operating Profit plus Other Income divided by Interest and Finance Charges plus Finance costs transferred to Capital Work-in-Progress/ Intangible Assets under development.

^^ Cash EPS is calculated as Profit/ (Loss) for the year plus Depreciation, Amortization and Impairment divided by Weighted average numbers of equity shares.

DIRECTORS' REPORT

Dear Shareholders,

Your Directors have pleasure in presenting the 1st Integrated Annual Report and 62nd Annual Accounts of your company for the year ended 31st March, 2021.

FINANCIAL HIGHLIGHTS

₹ in Crore

	Consolidated		Standalone	
	2020-21	2019-20	2020-21	2019-20
Revenue from Operations	131985	118144	42701	40242
Other Income	1222	1186	650	739
Profit Before Interest, Tax and Depreciation (PBITDA)	**18896**	**15536**	**4884**	**4403**
Depreciation and Amortisation	6628	5091	1708	1708
Impairment Loss/(Reversal) of Non Current Assets (Net)	138	44	140	-
Finance Costs	3738	4197	1469	1679
Profit before Exceptional Items and Tax Share in Profit / (Loss) in Equity Accounted Investments	**8392**	**6204**	**1567**	**1016**
Share of Equity Accounted Investments	5	4	-	-
Profit before Exceptional Items and Tax	**8397**	**6208**	**1567**	**1016**
Exceptional Items	(492)	(284)	7	(64)
Profit before Tax	**7905**	**5924**	**1574**	**952**
Tax Expenses	2723	2157	581	332
Profit/ (Loss) for the year from Continuing Operations	**5182**	**3767**	-	-
Profit/ (Loss) for the Year from Discontinued Operations	(2066)	-	-	-
Tax Expense/ (Benefit) of Discontinued Operations	(367)	-	-	-
Profit/ (Loss) for the year from Discontinued Operations	**(1699)**	**-**	-	-
Profit/ (Loss) for the year	**3483**	**3767**	**993**	**620**
Other Comprehensive Income / (Loss)	4784	(2723)	3780	(3400)
Total Comprehensive Income	**8267**	**1044**	**4773**	**(2780)**
Basic EPS - Continuing Operations (₹)	23.30	16.94	-	-
Basic EPS - Discontinued Operations (₹)	(7.64)	-	-	-
Basic EPS (₹)	**15.66**	**16.94**	**4.46**	**2.79**

Appropriations to Reserves :

₹ in Crore

Appropriations	2020-21	2019-20
Opening Balance in Retained Earnings and Other Comprehensive Income	6624	9865
Total Comprehensive Income for the Current Year	4773	(2780)
Dividends paid	(222)	(316)
Transition Impact - Leases (Ind AS 116)	-	(9)
Hedging (Gain)/ Loss and cost of hedging transferred to non financial assets	(1)	14
Employee Share Based Transcations	2	-
Transferred to Debenture Redemption Fund	(150)	(150)
Closing Balance in Retained Earnings and Other Comprehensive Income	11026	6624

Dividend:

For the year ended 31st March,2021, the Board of Directors of your Company has recommended dividend of ₹ 3.00 per share (Previous year ₹ 1.00 per share) to equity shareholders.

Equity shares that may be allotted upon exercise of Options granted under the Employee Stock Option Scheme and out of the Share Capital Suspense before the Book Closure for payment of dividend will rank paripassu with the existing shares and shall also be entitled to receive the aforesaid dividend.

In terms of provisions of Regulation 43A of the Securities and Exchange Board of India (Listing Obligations & Disclosure Requirements) Regulations, 2015, herein after referred to as "Listing Regulations" your Company has formulated a Dividend Distribution Policy. The Policy is given in **Annexure I** to this Report and is also accessible from your Company's website www.hindalco.com.

OVERVIEW AND STATE OF THE COMPANY'S AFFAIRS:

The Standalone and Consolidated Financial Statements for the Financial Year ended 31st March, 2021 have been prepared in accordance with the Indian Accounting Standards (IND AS) as notified by the Ministry of Corporate Affairs.

Standalone full year highlights

Your Company registered a revenue of ₹ 42,701 crores for the fiscal year 2021 vs ₹ 40,242 crores in the previous year up 6% on account of higher global prices of aluminium and copper in FY21 versus FY20. EBITDA (Earnings before Interest, Tax, Depreciation and Amortisation) stood at ₹ 4,884 crores, up 11% compared to the last year, on account of higher profitability in Aluminium business supported by improved macros, cost optimization and a strong market recovery, partially offset by lower profitability in copper business impacted by lockdown due to COVID and lower TC/RC in FY21. Depreciation was flat Year on Year at ₹ 1708 crore in FY21 versus FY20. The Finance Cost was lower on Year by 13% at ₹ 1,469 crores in FY21 versus ₹ 1,679 crores in FY20. This reduction in finance cost was mainly due to overall reduction in the average cost of long-term loans on account of re-financing. The Profit before Tax (and Before Exceptional Items) stood at ₹ 1,567 crore, up by 54% compared to the previous year due to higher EBITDA. Net Profit for FY21 stood at ₹ 993 crores as compared to ₹ 620 crore up 60% Year on Year compared to the previous year.

Consolidated Full Year Highlights

Hindalco's Consolidated Revenue stood at ₹ 1,31,985 crore for FY21 compared to ₹ 1,18,144 crore in the previous year up 12% on account of higher global prices of aluminium and copper in FY21 versus FY20. The Company recorded consolidated EBITDA (Earnings before Interest, Tax, Depreciation and Amortisation) of ₹ 18,896 crore, up by 22% due to favorable macro and lower input costs in FY21 versus FY20. Consolidated Profit before Tax (and Before Exceptional Items) was ₹ 8,397 crore in FY21, up by 35% compared to the previous year on account of higher EBITDA and lower interest costs. Net Profit after Tax in FY21, stood at ₹ 3,483 crores compared to ₹ 3,767 crores in the previous year down 8% Year on Year mainly on account of loss due to discontinued operations in FY21 due to loss booked on the divestiture of automotive assets in Aleris business acquired by Novelis during the year. For detailed analysis, refer to the Management Discussion and Analysis section of the Integrated Annual Report.

Highlights of the Company's Subsidiaries:

1. **Utkal Alumina International Limited**

Utkal Alumina revenues were ₹ 2,764 crore in FY21 compared to ₹ 2,653 crore in FY20 up by 4% because of higher transfer pricing compared to last year on account of higher average global alumina prices in FY21 versus FY20.

The EBITDA for FY21 stood at ₹ 1,371 crore higher by 38% compared to ₹ 992 crore in FY20. The Profit after Tax in FY21 was ₹ 605 crore versus ₹ 317 crore in FY20 up by 91% Year on Year on account of higher EBITDA in FY21. (Refer to the table below for comparison in FY21 versus FY20 key financial number)

Particulars	FY2020-21	FY2019-20	% Change
Revenue	2,764	2,653	4%
EBITDA	1,371	992	38%
PAT	605	317	91%

2. Novelis Inc.

The Performance highlights of Novelis Inc. are provided in detail for FY21 versus FY20 in the Management Discussion and Analysis Section of the Integrated Annual Report.

Key Initiatives

In India operations, the 500Kt Utkal's Alumina refinery brownfield capacity expansion is on track with mechanical completion by Q1FY22-end and commercial production to begin in Q2FY22. This project is at a capital outlay of around ₹1,500 crore. This will further help strengthen the Company's integration and boost the availability of best- in-class alumina and in a reduction of the overall cost of production going forward.

In the downstream expansion projects in India, the Company made a good progress, announcing its plans to set up a 34,000-tonne extrusion plant at Silvassa. The new plant will service the fast-growing market for extruded aluminium products in the western and southern regions. This is a ₹ 730-crore project with intention to build a larger value-added product portfolio over the next few years. The on-going downstream expansion projects will not only enhance the Company's capabilities but also help the Company to become further delinked from the volatility of global aluminium prices and thus move towards a more sustainable business model.

On April 14, 2020, Novelis closed its acquisition of Aleris Corporation. Novelis' acquisition of Aleris is expected to provide a strong pro-forma financial profile, many strategic benefits including securing an integrated manufacturing footprint in China, further portfolio diversification with the addition of aerospace and building and construction, as well as new technology and operational capabilities. Novelis is focused on the safe integration of Aleris' continuing operations to drive several strategic benefits.

Novelis' greenfield expansion projects of 200 Kt automotive finishing facility in Guthrie, Kentucky in the US and additional 100 Kt of Auto finishing line in China, were both commissioned and have started its commercial shipments in Q4FY21. Customer qualification continues to ramp up at both facilities to meet strong demand for lightweight, automotive aluminum sheet.

The rolling, casting and recycling capacity in Pinda, Brazil to meet growing customer demand is also expected to be commission by the end of FY22. In addition to this, Novelis investment to expand and upgrade recycling capacity at its Greensboro facility in the US is also expected to be completed by end of FY22.

During the year, the Company announced its capital allocation framework on a consolidated basis with a clear roadmap to deleveraging, profitable growth via organic expansions in India as well as in Novelis and distribution of shareholder returns.

HUMAN RESOURCES

Several innovative people - focused initiatives have been instituted at the Group level, and these are translated into action at all of the Group Companies. Our basic objective is to ensure that a robust talent pipeline and a high-performance culture, centred around accountability is in place. We feel this is critical to enable us retain our competitive edge.

RESEARCH AND DEVELOPMENT

Your Company's Research & Development (R&D) activities are focused on providing innovative, cost-effective and sustainable solutions to support consistent growth of business. The R&D activities of your Company include process, product and application development, to develop short term as well as long term solutions to the issues faced by non-ferrous sector, such as, raw material quality, cost effective management of waste generated during processing, recovery of value from by-product as well as any waste products, developing better understanding of the science of processes, reducing the specific energy consumption and carbon footprint etc. Specific programs have also been initiated to foster better understanding of the requirement of existing and prospective customers, and to provide a better service through application development, so as to increase your company's market share in the chosen market space. Technical competencies developed by your company will go a long way in terms of quick absorption of technologies, enabling pushing boundaries of our processes, so as to increase the economic performance and improve our new product/ new application pipeline to address the impending market opportunities.

Your Company already operates three Hindalco Innovation Centres (HIC), one HIC-Alumina at Belagavi working on R&D of bauxite ore, alumina refining and specialty alumina, hydrate products and their application in different end uses; as well as waste management; and one HIC-SemiFab located at Taloja, near Mumbai, working in the area of tribology, energy and environment management and aluminium fabricated products and new applications. Additionally, R&D Team at Birla Copper, Dahej, is focusing on maximisation of copper recovery as well recovery of various metal values, such as, Selenium, Tellurium, Nickel, Bismuth, etc., from the effluent generated in the plant and value added applications of the solid wastes generated, namely, copper slag and phospho-gypsum. In addition, your company engages the Aditya Birla Group's corporate research and development centre, Aditya Birla Science and Technology Company Private Limited ("ABSTCPL"), for conducting R&D in select areas of work through chartered R&D projects. These are based on the domain expertise and R&D facilities available in ABSTCPL. Parallelly, we also work with different R&D institutes of national and international reputes to develop technologies for our mutual benefits. The engagement has resulted into patent applications, which have been and will be assigned to your company on the grant of the patent. ABSTCPL's forte of having multidisciplinary teams of technical experts, scientists and engineers, enables your company to develop building competencies in select areas, as a long term value to business. Both the HICs at Belagavi and Taloja as well as ABSTCPL are DSIR, GOI recognised R&D Centres.

CONSOLIDATED FINANCIAL STATEMENTS

The Consolidated Financial Statements for the year ended 31st March, 2021 have been prepared by your Company in accordance with the provisions of the Companies Act, 2013, ("the Act") read with the Companies (Accounts) Rules, 2014, applicable Accounting Standards and the provisions of "Listing Regulations" and forms part of the Integrated Annual Report.

EMPLOYEE STOCK OPTION SCHEMES

ESOS – 2006

During the year ended 31st March 2021, the Company has allotted 65,652 fully paid-up equity share of ₹ 1/- each of the Company (Previous year 3,59,415) on exercise of options under ESOS 2006.

ESOS – 2013

During the year ended 31st March 2021, the Company has allotted 3,95,908 fully paid-up equity share of ₹ 1/- each of the Company (Previous year 3,33,027) on exercise of options under ESOS 2013.

ESOS – 2018

During the year, the Company has granted 582,240 stock options (Previous year 307,716) and 20,487 RSUs (Previous year 72,355) under ESOS 2018.

Hindalco Employee Welfare Trust has transfered 60,707 fully paid-up equity share of ₹ 1/- each of the Company during the year on exercise of Options under ESOS 2018.

The details of Stock Options and Restricted Stock Units granted under the above-mentioned Schemes are available on your Company's website viz. www.hindalco.com.

A certificate from the statutory auditor on the implementation of your Company's Employees Stock Option Schemes will be placed at the ensuing Annual General Meeting for inspection by the members.

There is no material change in the Schemes and the aforementioned schemes are in compliance with SEBI (Share Based Employee Benefits) Regulations, 2014.

CORPORATE GOVERNANCE

Your Directors reaffirm their continued commitment to good corporate governance practices. Your Company fully adheres to the standards set out by the Securities and Exchange Board of India for Corporate Governance practices.

The entire report on Corporate Governance forms part of Integrated Annual Report.

ABRIDGED ANNUAL REPORT

MCA General circular No. 20/2020 dated 5th May 2020 and General Circular No. 02/2021 dated 13th January,2021 states that considering prevailing situation and owing to difficulties involved in dispatching of physical copy of financial statements (including Board's report, Auditor's report or other documents required to be attached therewith), such statements shall be sent only by email to the members and to all other persons so entitled. Therefore Company has decided neither to print Full Integrated Annual Report nor prepare Abridged Annual Report. You are kindly requested to take note of the same.

DIRECTORS' RESPONSIBILITY STATEMENT

As stipulated in Section 134(3)(c) of the Companies Act, 2013 "the Act", your Directors subscribe to the "Directors' Responsibility Statement" and confirm that:

a) in the preparation of the annual accounts, applicable accounting standards have been followed along with proper explanations relating to material departures;

b) the accounting policies selected have been applied consistently and judgments and estimates have been made that are reasonable and prudent so as to give a true and fair view of the state of affairs of the company as at 31st March,2021 and of the profit of your company for that period;

c) proper and sufficient care has been taken for the maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding the assets of your company and for preventing and detecting fraud and other irregularities;

d) the annual accounts of your Company have been prepared on a going concern basis;

e) your Company had laid down internal financial controls and that such internal financial controls are adequate and were operating effectively;

f) your Company has devised proper system to ensure compliance with the provisions of all applicable laws and that such systems were adequate and operating effectively.

ENERGY, TECHNOLOGY AND FOREIGN EXCHANGE

The information on conservation of Energy, Technology Absorption and Foreign Exchange Earnings and Outgo stipulated under Section 134(3)(m) of the Companies Act, 2013, read with Companies (Accounts) Rules, 2014 is set out in **Annexure II** to this Report.

PARTICULARS OF EMPLOYEES

In accordance with the provisions of Section 197(12) of the Companies Act,2013 "the Act", read with the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014, the names and other particulars of employees are to be set out in the Directors' Report, as an addendum thereto. However, in line with the provisions of Section 136(1) of the Act, the Report and Accounts as set out therein, are being sent to all Members of your Company excluding the aforesaid information about the employees. Any Member, who is interested in obtaining these particulars about employees, may write to the Company Secretary at the Registered Office of your Company.

Disclosures pertaining to remuneration and other details as required under section 197(12) read with Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014 are attached as **Annexure III** to this Report.

DIRECTORS

Board constitution and changes

Mr. Askaran Agarwala (DIN: 00023684) will retire from office by rotation at the ensuing Annual General Meeting, and being eligible, offers himself for reappointment.

Mr. Satish Pai (DIN:06646758) is re- appointed as the Managing Director for a term of 3 years w.e.f. 1st August 2021, subject to shareholder's approval at the ensuing Annual General Meeting.

Mr. Praveen Kumar Maheshwari (DIN:00174361) is re-appointed as the Whole-time Director for a term of 1 Year w.e.f. 28th May, 2021, subject to shareholders approval at the ensuing Annual General Meeting. He is also the Chief Financial Officer of the Company.

Brief resume of the Directors being re-appointed form part of the Notice of the ensuing Annual General Meeting.

The Board recommends, re-appointment of Mr. Askaran Agarwala, Mr. Satish Pai and Mr. Praveen Kumar Maheshwari. Item seeking your approval is included in the Notice convening the Annual General Meeting.

All the directors being appointed/reappointed have given required declaration under Companies Act, 2013 and Listing Regulations.

Independent Directors

Independent Directors on your Company's Board have submitted declarations of independence to the effect that they meet the criteria of independence as provided in Section 149(6) of the Companies Act, 2013 and Regulation 16(1)(b) of the Listing Regulations.

All Independent Directors of your Company except Mr. Anant Maheshwari have registered their name in the data bank maintained with the Indian Institute of Corporate Affairs. Action is being taken to register the name of Mr. Anant Maheshwari.

Appointment and remuneration of Directors and Key Managerial Personnel

The Nomination and Remuneration Committee has formulated the remuneration policy of your company which is attached as **Annexure IV** to this Report.

Our Executive pay aims to strike the appropriate balance between key components: (i) Fixed Cash compensation (Basic Salary + Allowances) (ii) Annual Incentive Plan (iii) Long-Term Incentives (iv) Perks and Benefits.

The Annual Incentive pay-outs to Executive Directors are tied to relevant financial and operational metrics achievement and their individual performance. The financial and operational metrics are annually aligned with priorities/ focus areas for the business. Additionally, Sustainability Targets form part of performance metrics for Annual Incentive Pay for the Managing Director.

The remuneration of the Managing Director and the Whole time Director is in line with the policy of the Company and trend prevailing in the Corporate sector in the country. The dividend recommended to the equity shareholders(300% for FY 21) is also in line with the performance and policy of the Company. The details of remuneration of the Managing and Whole Time Director with the median remuneration of employees are provided in detail in Annexure III to this Report. Further the details of remuneration received from subsidiary company is also part of this report.

The Company shall recover the amount from the remuneration of Managing Director if required as per the relevant provisions of the Companies Act, 2013.

Meetings of the Board

The Board of Directors of your Company met Six times during the year, details of which are given in the Corporate Governance Report forming part of the Integrated Annual Report.

Annual Evaluation

Pursuant to the provisions of the Companies Act,2013 and Listing Regulations, the Directors has carried annual performance evaluation of Board, Independent Directors, Non Executive Directors, Executive Directors, Committee and Chairman of the Board.

The evaluation framework focused on various aspects of the Board and Committees such as review, timely information from management etc. Also, the performance of individual directors was divided into Executive, Non Executive and Independent Directors and based on the parameters such as contribution, attendance, decision making, action oriented, external knowledge etc.

Board members have evaluated Independent Directors, Non executive Directors, Executive Directors, Committee and Chairman of the Board. The result of evaluation was satisfactory and meets the requirements of the Company. Board fully agreed and rated 100% on its functioning, skill sets and working atmosphere. Independent Directors scored well on expressing their views and in understanding the Company and its requirements. Non-Executive Directors scored well in understanding the Company and its requirements and keep themselves current on the areas to be discussed. Executive Directors are action oriented and ensures timely implementation of the Board decisions. Board is completely satisfied with the functioning of various Committees. Board has full faith in the Chairman in leading the Board effectively and ensuring contribution from all its members.

AUDIT COMMITTEE

The Audit Committee comprises of Mr. K.N. Bhandari, Independent Director, Mr. Vikas Balia, Independent Director and Mr. Y.P. Dandiwala, Independent Director.

Mr. Satish Pai : Managing Director and Mr. Praveen Kumar Maheshwari: Chief Financial Officer and Whole-Time Director are the permanent invitees. Further details relating to the Audit Committee are provided in the Corporate Governance Report forming part of the Integrated Annual Report.

KEY MANAGERIAL PERSONNEL

In terms of provisions of Section 203 of the Companies Act,2013, Mr. Satish Pai: Managing Director, Mr. Praveen Kumar Maheshwari : Chief Financial Officer and Whole Time Director and Mr. Anil Malik: Company Secretary are the Key Managerial Personnel of your Company.

VIGIL MECHANISM

Your Company has in place a vigil mechanism for directors and employees to report concerns about unethical behaviour, actual or suspected fraud or violation of your Company's Code of Conduct. Adequate safeguards are provided against victimisation to those who avail of the mechanism and direct access to the Chairman of the Audit Committee in exceptional cases is provided to them.

The vigil mechanism is available on your Company's website viz. www.hindalco.com.

AUDITORS

Statutory Auditors

M/s. Price Waterhouse & Co. Chartered Accountants LLP (Registration No. 304026E/E-300009), are the Statutory Auditors of the Company who are appointed for a period of five years i.e., to hold office from the conclusion of the Fifty Eighth Annual General Meeting held in 2017 till the conclusion of the Sixty third Annual General Meeting of the Company, to be held in the Calendar year 2022.

The observation made in the Auditor's Report are self explanatory and therefore, do not call for any further comments under Section 134(3)(f) of the Act.

Cost Auditors

In terms of the provisions of Section 148 of the Act read with the Companies (Cost Records and Audit) Amendment Rules, 2014, the Board of Directors of your Company have on the recommendation of the Audit Committee, appointed M/s. R. Nanabhoy & Co., Cost Accountants, Mumbai as Cost Auditors, to conduct the cost audit of your Company for the financial year ending 31st March, 2022, at a remuneration as mentioned in the Notice convening the Annual General Meeting. As required under the Act, the remuneration payable to the cost auditor is required to be placed before the Members in a general meeting for their ratification. Accordingly, a resolution seeking Member's ratification for the remuneration payable to Cost Auditors forms part of the Notice of the ensuing Annual General Meeting.

Secretarial Auditors

Pursuant to provisions of Section 204 of the Companies Act, 2013 read with the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014, the Company has appointed BNP& Associates, Company Secretaries, Mumbai as Secretarial Auditor for conducting the Secretarial Audit of your Company for the financial year ended 31st March, 2021. The Report of the Secretarial Auditors is annexed herewith as **Annexure VA** to the Annual Report.

The Secretarial Audit Report does not contain any qualification, reservation or adverse remark.

As per Regulation 24A of the Listing Regulations, material unlisted subsidiaries of a listed entity incorporated in India is required to annex a Secretarial Audit Report issued by a Company Secretary in practice. In compliance with the above requirement, the Secretarial Audit Report of Utkal Alumina International Limited, a material subsidiary of your Company, is given in **Annexure VB** to the Annual Report. The Secretarial Audit Report do not contain any qualification, reservation or adverse remark.

ENVIRONMENT PROTECTION AND POLLUTION CONTROL

Your Company is committed to sustainable development. A detailed report of the Company's initiatives and commitment to environment conservation is part of Integrated Annual Report.

PARTICULARS OF LOANS, GUARANTEES AND INVESTMENTS

Details of Loans, Guarantee and Investments covered under the provisions of Section 186 of the Companies Act, 2013 read with Companies (Meetings of Board and its Powers) Rules, 2014 are given in the notes to Financial Statements of the Integrated Annual Report.

CORPORATE SOCIAL RESPONSIBILITY

In terms of the provisions of Section 135 of the Companies Act, 2013 ("the Act") read with Companies (Corporate Social Responsibility Policy) Rules, 2014 and any amended thereof the Board of Directors of your Company has constituted a Corporate Social Responsibility ("CSR") Committee which is chaired by Mrs. Rajashree Birla. The other Members of the Committee for the Financial year ending 31st March 2021 were Mr. Y.P. Dandiwala, Independent Director, Mr. A.K. Agarwala, Non Executive Director, Mr. Satish Pai: Managing Director and Mr. D. Bhattacharya: Non Executive Director. Dr. Pragnya Ram, Group Executive President & Group Head - CSR, Legacy Documentation & Archives is a permanent invitee to the Committee.

Your Company also has in place a CSR Policy and the same is available on your Company's website viz. www.hindalco.com. The Committee recommends to the Board activities to be undertaken during the year.

Your Company is a caring corporate citizen and lays significant emphasis on development of the communities around which it operates. Your Company has identified several projects relating to Social Empowerment & Welfare, Infrastructure Development, Sustainable Livelihood, Health Care and Education during the year and initiated various activities in neighbouring villages around plant locations. During the financial Year 2020-21 the Company has spent ₹ 40.50 Crores under Section 135 of the Companies Act, 2013 on CSR activities, which is more than 2% of average net profits of the Company for last three financial years.

The Annual Report on CSR activities is attached as **Annexure VI** to this Report.

RISK MANAGEMENT

Pursuant to the requirement of Listing Regulations, the Company has constituted Risk Management Committee, which is mandated to review the risk management plan/ process of your company.

Risk evaluation and management is an ongoing process within the Organization. Your Company has comprehensive risk management policy which is periodically reviewed by the Risk Management Committee.

CONTRACTS AND ARRANGEMENTS WITH RELATED PARTIES

During the financial year, your Company entered into related party transactions. There are no material transactions with any related party as defined under Section 188 of the Act read with Companies (Meetings of Board and its Powers) Rules, 2014 and SEBI (Listing Obligations and Disclosures Requirement) Regulations,2015. The related party transactions have been approved by the Audit Committee and Board of your Company as required under the Companies Act 2013 and SEBI (Listing Obligations and Disclosures Requirement) Regulations, 2015.

The policy on Related Party Transactions as approved by the Audit Committee and the Board is available on your Company's website viz. www.hindalco.com .

ANNUAL RETURN

In terms of the provisions of the Companies Act, 2013 ("the Act") read with the Companies (Management and Administration) Rules, 2014, the Annual Return of your Company for the financial year ended 31st March, 2021 is available on the website of the Company.

BUSINESS RESPONSIBILITY REPORT

As per Listing Regulations, a separate section of Business Responsibility Report forms part of Integrated Annual Report.

INTERNAL CONTROL SYSTEM AND THEIR ADEQUACY

Your Company has an Internal Control System, commensurate with the size, scale and complexity of its operations. The scope and authority of the Internal Audit (IA) function is defined by the Audit Committee.

The Internal Audit Department monitors and evaluates the efficacy and adequacy of internal control system in the Company, its compliance with operating systems, accounting procedures and policies at all locations of the Company.

Based on the report of internal auditors, the process owners undertake corrective action in their respective areas and thereby strengthen the controls. Significant audit observations and corrective actions thereon are presented to the Audit Committee of the Board.

INTERNAL FINANCIAL CONTROL

Your directors confirm having laid down internal financial controls and that such internal financial controls are adequate and were operating effectively

SUBSIDIARY, JOINT VENTURES OR ASSOCIATE COMPANIES

The financial statements of your Company's subsidiaries and related information have been placed on the website of your Company viz. www.hindalco.com.

In accordance with the provisions of the section 129 (3) of the Act, read with the Companies (Accounts) Rules, 2014, a report on the performance and financial position of each of the subsidiaries, associates and Joint Venture is attached as **Annexure VII** to this Report.

The names of Companies which have become or ceased to be subsidiaries, Joint Ventures and associates are also provided in the aforesaid statement.

OTHER DISCLOSURES

- There were no material changes and commitments affecting the financial position of your Company between end of financial year and the date of report.
- Your Company has not issued any shares with differential voting.
- There was no revision in the financial statements.
- Your Company has not issued any sweat equity shares.
- Mr. Satish Pai is a director on the Board of Novelis Inc, wholly owned subsidiary. He is in receipt of annual fee of US$ 1,50,000 in the calendar year 2021 . Mr. Praveen Kumar Maheshwari: Whole Time Director and Chief Financial Officer has not received any commission/ Remuneration from your Company's subsidiaries.
- There is no change in the nature of business.
- During the year under review, your Company has not accepted any fixed deposits from the public falling under Section 73 of the Act read with the Companies (Acceptance of Deposits) Rules, 2014. Thus, as on March 31, 2021, there were no deposits which were unpaid or unclaimed and due for repayment.
- There are no significant and material orders passed by the regulators or courts or tribunals impacting the going concern status and company's operations in future.
- There were no frauds reported by the Auditors u/s 143(12) of the Companies Act,2013.
- As per the requirement of the Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act, 2013, your Company has complied with provisions relating to the constitution of Internal Complaint Committee under POSH.
- Directors of your Company hereby state and confirm that the Company has complied with all the applicable Secretarial Standards.
- The cost accounts and records as required to be maintained under Section 148(1) of the Act are duly made and maintained by your Company.

APPRECIATION

Your Directors place on record their sincere appreciation for the assistance and guidance provided by the Honorable Ministers, Secretaries and other officials of the Ministry of Mines, Ministry of Coal, the Ministry of Chemicals and Fertilizers and various State Governments. Your Directors thank the Financial Institutions and Banks associated with your Company for their support as well.

Your Company's employees are instrumental in your Company scaling new heights, year after year. Their commitment and contribution is deeply acknowledged.

Your involvement as Shareholders is greatly valued. Your Directors look forward to your continuing support.

For and on behalf of the Board

Satish Pai	K.N. Bhandari
Managing Director	Independent Director
DIN:06646758	DIN: 00026078

Place: Mumbai
Dated: 2nd July, 2021

ANNEXURE I

Dividend Distribution Policy

1. **Introduction**

1.1. As per the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, as amended, the Company is required to formulate and disclose its Dividend Distribution Policy. Accordingly, the Board of Directors of the Company ('the Board') has approved this Dividend Distribution Policy for the Company at its meeting held on 13th February 2017 as amended on 22nd February 2021.

1.2. The objective of this policy is to provide clarity to stakeholders on the dividend distribution framework to be adopted by the Company. The Board of Directors shall recommend dividend in compliance with this policy, the provisions of the Companies Act, 2013 and Rules made thereunder and other applicable legal provisions.

2. **Target Dividend Payout**

2.1. Dividend will be declared for any financial year out of the profits of the company for that year or out of the profits of the company for any previous financial year or years arrived at after providing for depreciation and remaining undistributed, or out of both;

2.2. The Board will endeavor to distribute a dividend in the range of 8 % to 10% of the Free Cash Flow at Hindalco Consolidated Level (defined as Cash Flow after meeting interest, tax, other statutory dues, maintenance capital expenditure and working capital requirements at Hindalco Consolidated Level but before considering strategic capital expenditure and debt repayments/pre-payments) of the relevant year subject to compliances of the Companies Act 2013 and all other applicable Regulations.

3. **Factors to be Considered for Dividend Payout**

The Board will consider various internal and external factors, including but not limited to the following before making any recommendation for dividends:

- Free Cash Flow of the relevant year (as defined above)
- Stability of earnings
- Future capital expenditure, inorganic growth plans and reinvestment opportunities
- Industry outlook and stage of business cycle for underlying businesses
- Leverage profile and capital adequacy metrics
- Overall economic and regulatory environment
- Contingent liabilities
- Past dividend trends
- Buyback of shares or any such alternate profit distribution measure
- Any other contingency plans

4. **Review**

This policy would be subject to revision and amendment on a periodic basis as may be necessary.

5. **Disclosure**

This policy (as amended from time to time) will be available on the company's website and in the annual report.

Original date of Board Meeting where the Policy was approved 13th February, 2017

Board Meeting approval date for this revised policy 22nd February, 2021.

ANNEXURE II

Disclosure of particulars with respect to Conservation of Energy, Technology Absorption and Foreign Exchange Earnings and Outgo as prescribed under Rule 8(3) of the Companies (Accounts) Rules, 2014

A - Conservation of Energy

i) **The steps taken on conservation of energy.**

a. Periodic Energy Audit conducted in all units as per schedule. Amidst restriction but strictly following the covid protocol, audit could be completed at five locations during the year.

b. During the year, M&V (monitoring & verification) audit, as part of BEE PAT (Perform, Achieve & Trade scheme) Cycle-3, was conducted in one unit. Actual savings achieved is higher than the target set by BEE and ESCerts (Energy Savings Certificates) recommended for issuance against the excess savings.

c. Encouraging, facilitating and coaching young professionals for BEE Energy Manager/Auditor examination. During the year, a six-day in-house training session was organized for candidates appearing in the next BEE examination and there were more than 100 participants.

d. To keep the BEE certified internal Energy Auditors engaged and also to identify additional improvement areas, a system for inter-plant energy audit has been implemented.

e. During the year, Aditya Smelter unit was certified ISO 50001.With this, total five units are now ISO 50001 certified. Additionally, stage-1 audit for certification has been completed at Utkal Alumina (UAIL).

f. Installing direct LNG fired Hot Air Generator to replace Steam & Electrical Heaters of the Spin Flash Dryers (SFDs) in Refinery.

g. Reduction in Aluminium Smelter energy consumption through phased implementation of copper insert collector bar, clamp modification, Cast iron sealing, Step stub Anode, pot noise control etc.

h. Power Plant efficiency improvement by improving Condenser Vacuum through improvised tube cleaning, TG overhauling, duct modification through CFD study etc.

i. Rationalization of motor, pump & fan capacities and replacement of inefficient pumps & motors with high efficiency pumps & motors.

j. Energy efficient & corrosion resistant coating in pumps.

k. Installation of VFD in variable load application.

l. Compressed Air system efficiency improvement through replacement of inefficient compressors, arresting leakages, process optimization etc.

ii) **The steps taken by the company for utilising alternate sources of energy.**

a. Additional 2.3 MWp Solar PV Power Plant was installed and commissioned during the year at Alupuram, Kerala unit taking the Alupuram solar installed capacity to 3.45 MWp. Total installed renewable capacity across units is 49 MW.

b. Additional 49 MWp Solar PV Power plant at five locations are under different phases of implementation. There are delays due to Covid restrictions but we target to complete and commission all the planned projects by Mar'22.

c. We are actively pursuing a Renewable Hybrid with storage project for our Dahej unit in Gujarat.

d. Feasibility study has been initiated for additional Solar capacity including Floating solar option.

e. We are also evaluating new and emerging technologies on Energy storage, CCUS (carbon capture utilization & storage)

iii) **The capital investment on energy conservation equipment and projects**

The Capital investment on Energy conservation equipment & projects for the year was INR 186.6 crore

B - Technology Absorption

i) **Efforts made towards technology absorption**

Mahan

- Successful insertion of 90 Copper Insert Collector Bar Pots in FY 21 & total of 163 Copper Insert Pots now operating in pot line.
- Replacement of conventional HPSV lights with LED lights in CPP and cast house area.
- HPSV light replaced with LED lights in Cast House.
- Reduction in compressed air consumption of Smelter by
  - * Use of air intensifier
  - * Arresting leakages by using UV leakage detector.
  - * Solenoid mounted valve to stop air usage during equipment stoppages.
- VFD installation for controlling water flow in billet casting units.
- Auto Water Level Control of Hot Water Tank in CT-1 by doing two no's of the running Pump no.3 &4 on/off in Auto.
- Auto Control of Mold temperature by doing Auto ON/OFF of Mold Heater .
- Frequency limit of VFD's for Exhaust Blower in MHFs as per bed temperature requirement for burners in MHF No.-8
- Motion sensor/Limit switch installation at PLC room, shift room, thermistor room to save power during idle hours.
- Frequency limit in VFD's for Combustion Blower in Melting holding furnace (MHF) as per Maximum flow requirement for burners in MHF No.-5.
- New in line filtration system installed at Billet casting for lowering the metal temperature at start of the casting

Specific Areas in which R&D has been carried out at Belagavi HIC:

- Detailed processability studies with presently available bauxites to find out the process conditions for using these in Bayer process in an efficient way.
- Development of high brightness hydrate through Bayer process.
- Development of low soda alumina for US and Japan Markets for different types of high end ceramic applications.
- Development of high purity alumina for high end ceramic applications
- Development of hard calcined low soda alumina for metallized ceramics applications
- Development of bimodal hydrates for unsaturated polyester resin applications
- Development of specialty hydrates for EN45545/HL polymeric composites of railways
- Development of different types of coated hydrates for various polymeric applications.

The developmental and experimental works implemented at Renukoot:

- Installation of new milling machine to meet the face polishing requirement of button samples of furnaces and smelter samples as per ASTM requirement.
- Developed a special component In-house with suitable design for fitting with Zwick Tensile m/c 250 KN for successful testing of the product supplied to auto industry.
- Implementation of calculating procedure of Gage R&R value for showing long term stability of equipment and results.
- Experimental job was done for the fluoride destruction in effluent water by Bauxite Residue.
- Experiment job was done for Aluminium removal in Cooled Condensate water by Coagulant.
- New Method developed for analysis of Al_2O_3 in poly Aluminium chloride.
- New Method development for chemical oxygen demand analysis.
- New Method developed for analyzing Sulphate in water by calorimetric analysis

Technology absorption at Aditya Smelter:

- Successful insertion of 77 copper insert collector bar pots in potline in FY21 & total of 123 pots Copper Insert Pots now operating in pot line.
- Installation and commissioning of the Alloy Ingot machine and all allied systems. The facility includes an Alloy ingot casting machine (15 TPH capacity) along with 45 MT melting cum holding furnace with other utilities & accessories.
- Construction of Separate Engineering Station for Furnace and ICM.
- Monolithic Lining in Furnace instead of Brick Lining to increase the life and reduce Cost.
- Precimeter Orientation in Launder for proper workability of Operators.
- LPG preheating of Launder system to increase life of preheating system of Launders.
- Developing the Alloy program in Spectro (Lab), CRM's for calibration of the Spectro for alloy analysis.
- Redesign of Stacking Robo and labelling Robo operation philosophy of Casting Machine to reduce the Axis Movement and for the Ease of Maintenance.
- Installation of CCTV Cameras with backup of videos to monitor line operations.
- Programing for Multiple size Stacks of 500 kg and 1000 kg to suit customer requirement.
- Installation of safety light curtains across entire ICM line.
- Installation of LED Lights in Shop Floor to reduce energy.
- Installation and commissioning of the Flue wall Maintenance platform in Bake ovens

Technological absorption at Hirakud:

- Installation of new 100MVA power transformer with "Nitrogen Injection Fire Prevention System , Vacuum OLTC and Self Dehydrating Breather.
- Replacement of 4 nos. high energy consuming Boiler Feed Pumps with energy efficient pumps.
- Installation of Variable Frequency drives in Condensate Extraction pumps.
- Power Plant efficiency improvement by adding Economiser coils in Two Boilers.
- Power Factor improvement through capacitor bank installation in Coal Handling Plant.
- Installation of Thermal Digital Twin in 100 MW unit.

Technology absorption at Utkal:

- New alternate flocculants introduced in High Rate decanter (HRD). Plant trial was successfully conducted in the HRD after set of laboratory trials.
- For enhancing cooling capacity in precipitation area in context of maintaining liquor productivity at design level with higher plant operating factor additional heat transfer area was added in Plate Heat Exchangers (PHEs). The job was taken up in phased manner and additional plates were added in all PHE's.
- Software installed for Process data historian and Monitoring.
- Machine learning software installed for Critical equipment health monitoring.
- Centralized Lubrication System Installed in Pan Filters to improve the reliability of the system.
- Precipitation tank thickness monitoring done by using robot crawler technology.
- Utkal achieved lowest energy consumption at 7.7 GJ/t through various energy conservation initiatives, which is among the best in the world for identical technology in Alumina Refinery.

Technical Absorption efforts in Birla Copper:

- Improve heat recovery in the So2 off gas heat recovery boiler in flash smelter by inhouse R&D.
- Implemented process data historian and analytical systems in the smelter,refinery and Rod plant.

ii) **The benefits derived like product improvement, cost reduction, product development or import substitution: Mahan**

- Increase in current efficiency and reduction in the DC energy consumption per MT due to the copper insert collector pots.
- Production of High purity Aluminium P0303 & P0404 Sows.
- New in line filtration system installed at Billet casting provide savings in furnace oil and also reduce rejection percentage.
- CFF Filter size change provides better filtration efficiency at high speed operation and production of different grade of Wire rods.

Annexure II

- Improved process control resulting in better quality of Products.
- Reduction in compressed air consumption and improved energy efficiency.

Belagavi:
- Improvement of plant process efficiency and consistency in the quality of Bayer hydrate.
- Increase in sales realization in value added products, leading to the improvement in business profitability.
- Enhancement of customer satisfaction.
- Increase in market share in preferred applications and entering into new market segments.
- Development of environmental friendly products, leading to a more sustainable business.

Renukoot:
- Enhancement of quality reliability in Physical & Mechanical Testing of materials.
- Increased accuracy of analysis and savings in cost and time due to new methods development.

Aditya:
- Increase in current efficiency and reduction in the DC energy consumption per MT due to the copper insert collector pots.
- Alloy ingot A356.2 could be produced by alloy ingot casting machine as per the market demand & increase in customer base.
- Elimination of fall from height risk and improve overall life of the refractory in Bake oven.

Hirakud:
- Significant gains on energy efficiency and power plant performance.
- Digital twins helped in predicting process behaviour and ensure that the operations and maintenance processes are optimised.

Utkal:
- Improved process control and alternate vendor will provide cost saving.
- Improved equipment reliability due to health monitoring of equipment.
- Improved energy efficiency and liquor productivity at alumina refinery.
- Better safety as there is no need for the employee to reach all parts of the tank to measure the thickness.

Birla Copper:
- Heat recovery from So2 Off has help in debottlenecking of boiler limitation for flash smelter operation.
- Improved process control and advanced diagnosis for process optimization has been achieved.

Import Substitution :
- Developed alternate supplier of TC Rolls for WRM finishing mill.
- Locally developed Entry guide shaft in Roughing Mill Stand line and Switching table vertical roller assembly in WRM line as an alternative from OEM
- Bushing 16 x 30 x 38 x 032 of ICM line earlier supplied by OEM now developed in house.
- Transfer conveyor shaft of ICM supplied by OEM now developed in house.
- Bushing for ICM zero hammer supplied by OEM now developed in house.
- Layer conveyor chain earlier supplied by OEM now by local vendor.
- Wear resistant plate of used in ICM supplied by OEM replaced with by local vendor .
- Chain casting conveyor, ICM earlier supplied by OEM now developed through other vendor
- Furnace tending vehicle de drossing and hot cleaning tool developed indigenously.
- 12 mm dia wire rod for super enameled strips as an import substitute.
- Development of girth gear of turn table in the Insulated boom lift from local supplier, against import from OEM
- Ceramic launder dam developed locally for ICM launders.
- Rectifier DM Water expansion tank and valve developed from Indian vendor.
- DG battery charger spares of EPL developed from new vendor and repaired battery charger avoiding replacement of total battery charger.
- Develop indigenous supplier for cathode mother blanks in eletro- refining plant at Birla copper.

iii) In case of imported technology (imported during the last three years reckoned from the beginning of the financial year)

Technology imported for	Year of import	Has technology been fully absorbed	If not fully absorbed areas where this has not taken place reason thereof and future plant of action
At Aditya Aluminium Ingot casting machine to manufacture A356.2 (Scope includes casting demoulding, packaging) Packaging 2 Nos of ABB Robos part of the line .	2019	Yes completed	
At Aditya Aluminium Degasser for metal Quality Reduction of Hydrogen inclusions-STAS CFF -Befessa Spain	2019	Yes completed	
At Aditya Aluminium TAC (Treatment of metal in crucibles) Reduction of Alkalis in Molten Metal	2019	Installation partially completed	OEM experts visited Site during March 21. However due to critical Covid scenario in India due to pandemic it was partially completed. Once the Covid situation stabilizes OEM experts will be called upon for completion.
At Aditya Aluminium EMS (Electro Magnetic stirrer for homogenous mixing of metal)	2019	Yes completed	

R&D expenses Incurred :

The Company has spent ₹ 23 crore for Research and Development during the Financial Year 2020-2021.

Foreign Exchange earnings & Out Go.

a) Activities related to exports. Exports (FOB) during the year were ₹ 13,860 crore.

b) Total Foreign Exchange used and earned.

(1) Foreign Exchange used ₹ 23,123 crore.

(2) Foreign Exchange Earned ₹ 13,860 crore.

ANNEXURE III

Details pertaining to remuneration as required under Section 197(12) of the Companies Act, 2013 read with Rule 5(1) of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014

i. The percentage increase in remuneration of each Director, Chief Financial Officer and Company Secretary during the Financial year 2020-21, ratio of the remuneration of each Director to the median remuneration of the employees of the Company for the Financial year 2020-21 are as under:

Sr. No.	Name of Director/ KMP and Designation	Remuneration* of Director/ KMP for financial year 2020-21 (₹ in Lakhs)	% increase in Remuneration in the Financial Year 2020-21	Ratio of remuneration of each Director/to median remuneration of employees
1	Kumar Mangalam Birla	-	Not applicable	-
2	Rajashree Birla	298.15	173.16%	46.51
3	A.K. Agarwala	33.94	171.96%	5.29
4	Vikas Balia	47.28	363.98%	7.38
5	Y.P. Dandiwala	50.25	127.99%	7.84
6	K.N. Bhandari	53.94	156.25%	8.41
7	Alka Bharucha	34.82	340.20%	5.43
8	Ram Charan**	4.58	18.35%	0.71
9	D. Bhattacharya^	30.56	168.31%	4.77
10	Sudhir Mital	27.82	***1334.02%	4.34
11	Anant Maheshwari**	18.66	**	2.91
12	Satish Pai	2463.16	(22.81%)	384.27
13	Praveen Kumar Maheshwari	378.75	(39.54%)	59.09
14	Anil Malik	124.26	(12.89%)	19.39

^ Additionally, at the time of retirement, Board had approved pension of ₹ 0.335 crore per month and other post employment benefits for his past service when he was the Managing Director of the Company. The present value of the above pension liability determined based on the actuarial valuation is accounted by the Company in its financial statements. Amount charged as expenses in the statement of profit and loss during the year amounting to ₹ 3 crores has been disclosed as a part of managerial remuneration and doesn't include impact of actuarial losses recognised in other comprehensive income amounting to ₹ 1 crore.

* Remuneration includes commission payable to Non-Executive Directors for the year ended March 31, 2021 which is subject to the approval of the members of the Company. Sitting fees paid to Directors is excluded.

** Mr. Ram Charan (DIN: 03464530) has resigned as Independent Director w.e.f. 14th August, 2020 and Mr. Anant Maheshwari (DIN: 02963839) was appointed as Independent Director w.e.f. 14th August, 2020.

*** Remuneration paid to Mr. Sudhir Mital during 2019-20 was on pro-rata basis and not comparable.

i The median remuneration of employees of the Company during the financial year was ₹ 6.41 Lacs.

ii In the financial year, there was an increase of 4.57% in the median remuneration of employees.

iii There were 20,971 permanent employees on the rolls of Company as on 31st March, 2021.

iv Average percentage increase made in the salaries of employees other than the managerial personnel in the last financial year i.e. 2020-21 was 4.53 % whereas the decrease in the managerial remuneration for the same financial year was 25.55%. For the purpose of managerial personnel, Managing Director and Whole time Director are considered.

v It is hereby affirmed that the remuneration paid is as per the Remuneration Philosophy / Policy of the Company.

vi Remuneration excludes amortization of fair value of employee share based payments under IndAs 102 and provision for gratuity and leave encashment recognised on the basis of actuarial valuation as separate figures are not available.

vii During the current Financial Year, Mr. Praveen Kumar Maheshwari has been granted 29,779 Stock Options.

For and on behalf of the Board

Satish Pai
Managing Director
DIN:06646758

K.N. Bhandari
Independent Director
DIN: 00026078

Place : Mumbai
Dated : 2nd July, 2021

ANNEXURE IV

Hindalco Industries Limited ("the Company') an Aditya Birla Group Company adopts/shall adopt this Executive Remuneration Philosophy/Policy as applicable across Group Companies. This philosophy/ policy is detailed below.

Aditya Birla Group: Executive Remuneration Philosophy/Policy

At the Aditya Birla Group, we expect our executive team to foster a culture of growth and entrepreneurial risk-taking. Our Executive Remuneration Philosophy/Policy supports the design of programs that align executive rewards – including incentive programs, retirement benefit programs, promotion and advancement opportunities – with the long-term success of our stakeholders.

Our business and organizational model

Our Group is a conglomerate and organized in a manner such that there is sharing of resources and infrastructure. This results in uniformity of business processes and systems thereby promoting synergies and exemplary customer experiences.

I. Objectives of the Executive Remuneration Program

Our executive remuneration program is designed to attract, retain, and reward talented executives who will contribute to our long-term success and thereby build value for our shareholders.

Our executive remuneration program is intended to:

1. Provide for monetary and non-monetary remuneration elements to our executives on a holistic basis
2. Emphasize "Pay for Performance" by aligning incentives with business strategies to reward executives who achieve or exceed Group, business and individual goals.

II. Covered Executives

Our Executive Remuneration Philosophy/Policy applies to the following:

1. Directors of the Company
2. Key Managerial Personnel: Chief Executive Officer and equivalent (eg: Deputy Managing Director), Chief Financial Officer and Company Secretary.
3. Senior Management : As decided by the Board

III. Business and Talent Competitors

We benchmark our executive pay practices and levels against peer companies in similar industries, geographies and of similar size. In addition, we look at secondary reference (internal and external) benchmarks in order to ensure that pay policies and levels across the Group are broadly equitable and support the Group's global mobility objectives for executive talent. Secondary reference points bring to the table, the executive pay practices and pay levels in other markets and industries, to appreciate the differences in levels and medium of pay and build in as appropriate for decision making.

IV. Executive Pay Positioning

We aim to provide competitive remuneration opportunities to our executives by positioning target total remuneration (including perks and benefits, annual incentive pay-outs, long term incentive pay-outs at target performance) and target total cash compensation (including annual incentive pay-outs) at target performance directionally between median and top quartile of the primary talent market. We recognize the size and scope of the role and the market standing, skills and experience of incumbents while positioning our executives.

We use secondary market data only as a reference point for determining the types and amount of remuneration while principally believing that target total remuneration packages should reflect the typical cost of comparable executive talent available in the sector.

V. Executive Pay-Mix

Our executive pay-mix aims to strike the appropriate balance between key components: (i) Fixed Cash compensation (Basic Salary + Allowances) (ii) Annual Incentive Plan (iii) Long-Term Incentives (iv) Perks and Benefits

Annual Incentive Plan:
We tie annual incentive plan pay-outs of our executives to relevant financial and operational metrics achievement and their individual performance. We annually align the financial and operational metrics with priorities/ focus areas for the business.

Long-Term Incentive:
Our Long-term incentive plans incentivize stretch performance, link executive remuneration to sustained long term growth and act as a retention and reward tool.

We use stock options as the primary long-term incentive vehicles for our executives as we believe that they best align executive incentives with stockholder interests.

We grant restricted stock units as a secondary long term incentive vehicles, to motivate and retain our executives.

VI. Performance Goal Setting

We aim to ensure that for both annual incentive plans and long term incentive plans, the target performance goals shall be achievable and realistic.

Threshold performance (the point at which incentive plans are paid out at their minimum, but non-zero, level) shall reflect a base-line level of performance, reflecting an estimated 90% probability of achievement.

Target performance is the expected level of performance at the beginning of the performance cycle, taking into account all known relevant facts likely to impact measured performance.

Maximum performance (the point at which the maximum plan payout is made) shall be based on an exceptional level of achievement, reflecting no more than an estimated 10% probability of achievement.

VII. Executive Benefits and Perquisites

Our executives are eligible to participate in our broad-based retirement, health and welfare, and other employee benefit plans. In addition to these broad-based plans, they are eligible for perquisites and benefits plans commensurate with their roles. These benefits are designed to encourage long-term careers with the Group.

Other Remuneration Elements

Each of our executives is subject to an employment agreement. Each such agreement generally provides for a total remuneration package for our executives including continuity of service across the Group Companies.

We limit other remuneration elements, for e.g. Change in Control (CIC) agreements, severance agreements, to instances of compelling business need or competitive rationale and generally do not provide for any tax gross-ups for our executives.

Risk and Compliance

We aim to ensure that the Group's remuneration programs do not encourage excessive risk taking. We review our remuneration programs for factors such as, remuneration mix overly weighted towards annual incentives, uncapped pay-outs, unreasonable goals or thresholds, steep pay-out cliffs at certain performance levels that may encourage short-term decisions to meet pay-out thresholds.

Claw back Clause:

In an incident of restatement of financial statements, due to fraud or non-compliance with any requirement of the Companies Act 2013 and the rules made thereafter, we shall recover from our executives, the remuneration received in excess, of what would be payable to him / her as per restatement of financial statements, pertaining to the relevant performance year.

Implementation

The Group and Business Centre of Expertise teams will assist the Nomination & Remuneration Committee in adopting, interpreting and implementing the Executive Remuneration Philosophy/Policy. These services will be established through "arm's length", agreements entered into as needs arise in the normal course of business.

ANNEXURE VA

Form No. MR-3

SECRETARIAL AUDIT REPORT

FOR THE FINANCIAL YEAR ENDED 31ST MARCH 2021

[Pursuant to Section 204 (1) of the Companies Act, 2013 and Rule no. 9 of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014]

To
The Members
Hindalco Industries Limited
Ahura Centre, 1st Floor,
B Wing Mahakali Caves Road,
Mumbai - 400093

We have conducted the Secretarial Audit of the compliance of applicable statutory provisions and the adherence to good corporate practices by **HINDALCO INDUSTRIES LIMITED having CIN No. L27020MH1958PLC011238** (hereinafter called the 'Company') for the audit period covering the financial year ended on **31st March 2021** (the 'audit period'). Secretarial Audit was conducted in a manner that provided us a reasonable basis for evaluating the corporate conducts/statutory compliances and expressing our opinion thereon.

Based on our verification of the Company's books, papers, minute books, forms and returns filed, soft copy as provided by the company and other records maintained by the Company and also the information provided by the Company, its officers, agents and authorized representatives during the conduct of Secretarial Audit; We hereby report that in our opinion, the Company has, during the audit period complied with the statutory provisions listed hereunder and also that the Company has proper Board-processes and compliance-mechanism in place to the extent, in the manner and subject to the reporting made hereinafter.

We have examined the books, papers, minute books, forms and returns filed and other records maintained by the Company for the financial year ended on 31st March, 2021 according to the provisions of:

(i) The Companies Act, 2013 (the 'Act') and the Rules made thereunder;

(ii) The Securities Contracts (Regulation) Act, 1956 and the Rules made thereunder;

(iii) The Depositories Act, 1996 and the Regulations and Bye-laws framed thereunder;

(iv) Foreign Exchange Management Act, 1999 and the Rules and Regulations made thereunder to the extent of Overseas Direct Investment and External Commercial Borrowings.

(v) The following Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, 1992;

  (a) The Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 2011;

  (b) The Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 2015;

  (c) The Securities and Exchange Board of India (Share Based Employee Benefits) Regulations, 2014;

  (d) The Securities and Exchange Board of India (Registrars to an Issue and Share Transfer Agents) Regulations, 1993; and

  (e) The Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015;

  (f) The Securities and Exchange Board of India (Issue and Listing of Debt Securities) Regulations, 2008.

(vi) Other laws specifically applicable to the Company are:

  (a) The Mines Act, 1952; and

  (b) The Mines and Minerals (Regulation and Development) Act, 1957.

We have also examined compliance with the applicable clauses of the Secretarial Standards issued by the Institute of Company Secretaries of India during the audit period;

During the audit period, the Company has complied with the provisions of the Acts, Rules, Regulations and Bye-laws mentioned above.

During the period under review, provisions of the following regulations were not applicable to the Company:

(i) The Securities and Exchange Board of India (Delisting of Equity Shares) Regulations, 2009;

(ii) The Securities and Exchange Board of India (Buyback of Securities) Regulations, 1998; and

(iii) The Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2009;

(iv) The Foreign Exchange Management Act, 1999 and the Rules and Regulations made thereunder to the extent of Foreign Direct Investment.

We further report that –

The Board of Directors of the Company is duly constituted with proper balance of Executive Directors, Non-Executive Directors and Independent Directors as on 31st March 2021 as under:

I. Two Executive Directors;

II. Six Non- Executive Independent Directors; and

III. Four Non- Executive Non -Independent Directors

During the year the following changes in the composition of the Board of Directors were carried out in compliance with the provisions of the Act, Rules made thereunder and SEBI (LODR) Regulations:

I. Re- appointment of Mr. D. Bhattacharya (DIN: 00033553), as a Director, Retired by Rotation and re- appointed in the 61st Annual General Meeting held on 10th September, 2020

II. Re- appointment of Mr. Y. P. Dandiwala (DIN: 01055000), as an Independent Director, at the 61st Annual General Meeting held on 10th September, 2020

III. Appointment of Mr. Sudhir Mital (DIN: 008314675), as an Independent Director in the 61st Annual General Meeting held on 10th September, 2020

IV. Appointment of Mr. Anant Maheshwari (DIN: 02963839) as an Independent Director in the 61st Annual General Meeting held on 10th September, 2020.

V. Resignation of Mr. Ram Charan (DIN : 03464530) as an Independent Director, w.e.f. 14th August, 2020.

Adequate notice is given to all directors to schedule the Board Meetings, agenda and detailed notes on agenda were sent at least 7 (seven) days in advance except for one Board Meeting where consent for shorter notice was obtained from majority of the directors. System exists for seeking and obtaining further information and clarifications on the agenda items before the meeting and for meaningful participation at the meeting.

Decisions at the meetings of the Board of Directors of the Company were carried through on the basis of majority. There were no dissenting views by any member of the Board of Directors during the audit period.

We further report that there are adequate systems and processes in the Company commensurate with the size and operations of the Company to monitor and ensure compliance with applicable laws, rules, regulations and guidelines.

We further report that during the audit period, following specific event / action has occurred during the year:

1. During the audit period, the Company has allotted its equity shares under Employee Stock Option Schemes, as follows:

   i. First Quarter from 1st April, 2020 to 30th June, 2020 – 61,859 equity shares of ₹ 1 each.

   ii. Second Quarter from 1st July, 2020 to 30th September, 2020 – 68,035 equity shares of ₹ 1/- each.

   iii. Third Quarter from 1st October, 2020 to 31st December, 2020 – 2,30,357 equity shares of ₹ 1/- each.

   iv. Fourth Quarter from 1st January, 2021 to 31st March, 2021 – 1,01,309 equity shares of ₹ 1/- each.

2. Board of Directors in their meeting on 10th November, 2020, approved to subscribe 99,994 (Ninety Nine Thousand Nine Hundred and Ninety Four) Equity Shares in the Section 8 Company.

3. Board of Directors in their meeting on 07th December, 2020, had approved the setting up of the Company's Extrusion facility for a capacity of 34 KTPA at Silvassa by making an investment of an amount not exceeding ₹ 7,30,00,00,000/- (Rupees Seven hundred thirty crore only)

For BNP & Associates
Company Secretaries
[Firm Regn. No. P2014MH037400]

B. Narasimhan
FCS : 1303
ACS : 10440
UDIN: F001303C000351400

Place: Mumbai
Date: 21.05.2021

Note: *This report is to be read with our letter of even date which is annexed as Annexure A and forms an integral part of this report.*

Annexure A

To,
The Members,
Hindalco Industries Limited

Secretarial Audit Report of even date is to be read along with this letter.

1. The compliance of provisions of all laws, rules, regulations, standards applicable to Hindalco Industries Limited (the 'Company') is the responsibility of the management of the Company. Our examination was limited to the verification of records and procedures on test check basis for the purpose of issue of the Secretarial Audit Report.

2. Maintenance of secretarial and other records of applicable laws is the responsibility of the management of the Company. Our responsibility is to issue Secretarial Audit Report, based on the audit of the relevant records maintained and furnished to us by the Company, along with explanations where so required.

3. We have followed the audit practices and processes as were appropriate to obtain reasonable assurance about the correctness of the contents of the secretarial and other legal records, legal compliance mechanism and corporate conduct. The verification was done on test check basis to ensure that correct facts as reflected in secretarial and other records produced to us. We believe that the processes and practices we followed, provides a reasonable basis for our opinion for the purpose of issue of the Secretarial Audit Report.

4. We have not verified the correctness and appropriateness of financial records and Books of Accounts of the Company.

5. Wherever required, we have obtained the management representation about the compliance of laws, rules and regulations and major events during the audit period.

6. The Secretarial Audit Report is neither an assurance as to the future viability of the Company nor of the efficacy or effectiveness with which the management has conducted the affairs of the Company.

For BNP & Associates
Company Secretaries
[Firm Regn. No. P2014MH037400]

B. Narasimhan
FCS : 1303
ACS : 10440
UDIN: F001303C000351400

Place: Mumbai
Date: 21.05.2021

ANNEXURE VB

FORM NO. - MR-3

SECRETARIAL AUDIT REPORT

For the financial year ended 31st March 2021

[Pursuant to section 204(1) of the Companies Act, 2013 and Rule No.9 of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014]

To,
The Members
Utkal Alumina International Limited
J 6 Jayadev Vihar Bhubaneswar 751013.

We have conducted the Secretarial Audit of the compliance of applicable statutory provisions and the adherence to good corporate practices by **Utkal Alumina International Limited** having **CIN No. U13203OR1993PLC003416** (hereinafter called the 'Company') for the audit period covering the financial year ended on **31st March 2021** (the 'audit period'). Secretarial Audit was conducted in a manner that provided us a reasonable basis for evaluating the corporate conducts statutory compliances and expressing our opinion thereon.

Based on our verification of the Company's books, papers, minute books, forms and returns filed and other records maintained by the Company and also the information provided by the Company, its officers, agents and authorized representatives during the conduct of Secretarial Audit; We hereby report that in our opinion, the Company has, during the audit period complied with the statutory provisions listed hereunder and also that the Company has proper Board-processes and compliance-mechanism in place to the extent, in the manner and subject to the reporting made hereinafter.

We have examined the books, papers, minute books, forms and returns filed and other records maintained by the Company for the financial year ended on **31st March 2021** according to the provisions of The Companies Act, 2013 ('the Act') and the Rules made thereunder;

We have also examined compliance with the applicable clauses of the Secretarial Standards issued by the Institute of Company Secretaries of India during the audit period and

The Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 2015, to the extent applicable.

During the audit period, the Company has complied with the provisions of the Acts, Rules, Regulations and Bye-laws mentioned above.

During the audit period, provisions of the following Act/ Regulations were not applicable to the Company:

i. The Securities Contracts (Regulation) Act, 1956 and the Rules made thereunder except relating to transfer of securities;

ii. The Depositories Act, 1996 and the Regulations and Bye-laws framed thereunder;

iii. Foreign Exchange Management Act, 1999 and the rules and regulations made thereunder to the extent of Foreign Direct Investment, Overseas Direct Investment and External Commercial borrowings;

iv. The following Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, 1992 ('SEBI Act'):

   a. The Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 2011;

   b. The Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2009;

   c. The Securities and Exchange Board of India (Registrars to an Issue and Share Transfer Agents) Regulations, 1993;

   d. The Securities and Exchange Board of India (Share Based Employee Benefits) Regulations, 2014;

   e. The Securities and Exchange Board of India (Delisting of Equity Shares) Regulations, 2009;

   f. The Securities and Exchange Board of India (Buyback of Securities) Regulation, 1998.

   g. The Securities and Exchange Board of India (Issue and Listing of Debt Securities) Regulations, 2008; and

   h. The Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015.

We further report that -

The Board of Directors of the Company is duly constituted with proper balance of Non-Executive Directors.

During the year, the following changes in the composition of the Board of Directors were carried out in compliance with the provisions of the Act, Rules made thereunder:

i. Re-appointment of Mr. Surya Kanta Mishra as a Director (DIN: 02544268), Retired by Rotation and re- appointed in the 27th Annual General Meeting held on 25th September, 2020

ii. Re-appointment of Dr. Pragnya Ram as a Director (DIN: 00832233), Retired by Rotation and re- appointed in the 27th Annual General Meeting held on 25th September, 2020

iii. Appointment of Mr. Praveen Kumar Maheshwari (DIN: 00174361) as an Additional Director with effect from October 31st 2019 in the 27th Annual General Meeting held on 25th September, 2020

iv. Appointment of Mr. Anil Arya (DIN: 03310125) as an Additional Director with effect from January 30th 2020 in the 27th Annual General Meeting held on 25th September, 2020

Adequate notice is given to all directors to schedule the Board Meetings, agenda and detailed notes on agenda were sent at least seven days in advance and where the same were given at shorter notice than 7 (seven) days, proper consent thereof were obtained and a system exists for seeking and obtaining further information and clarifications on the agenda items before the meeting and for meaningful participation at the meeting.

Decisions at the meetings of the Board of Directors of the Company were carried through on the basis of majority. There were no dissenting views by any member of the Board of Directors during the audit period.

We further report that there are adequate systems and processes in the Company commensurate with the size and operations of the Company to monitor and ensure compliance with applicable laws, rules, regulations and guidelines.

We further report that during the audit period, except the following, there were no specific event/action having major bearing on the company's affairs pursuance to the laws, rules, regulations, guidelines, standards, etc. as referred above :

- Approval of the Shareholders of the Company, under section 62(3) of the Companies Act 2013 for the conversion of Rupee Loan into fully paid up Equity Shares of the Company either the whole or part of outstanding under facility agreement aggregating up to ₹ 15,00,00,00,000, by passing a Special Resolution at their Extra-Ordinary General Meeting held on November 30, 2020 as per the terms and conditions contained in the Facility Agreement executed between the Company and State Bank of India ('Lender') for availing a Rupee Term Loan aggregating up to ₹ 15,00,00,00,000.

- Pursuant to an agreement between the Company and Orissa Mining Corporation Limited ('OMCL'), the Company has agreed to issue 15% Fully Convertible Cumulative Preference Shares amounting to ₹ 20 crores with face value of ₹ 10 each, at par in consideration for transfer of license, mining leases and all rights thereto, rendering of related technical services etc. by OMCL. The Company has decided to issue Unsecured, Redeemable Non-Convertible Debentures in lieu of the Preference shares to OMCL. In terms of Debenture Subscription Agreement entered into between the Company and OMCL, the Board of Directors of the Company has passed a resolution at it's meeting held on August 07, 2020, approving the issuance of one zero coupon Unsecured Redeemable Non- Convertible Debentures of ₹ 3 Crores in favour of the Odisha Mining Corporation Limited and subsequently, the Company has allotted the One Zero Coupon Unsecured Redeemable Non-Convertible Debentures of ₹ 3 Crores, in favour of the Odisha Mining Corporation Limited, on 21st September 2020.

For BNP & Associates
Company Secretaries
[Firm Regn. No. P2014MH037400]
[PR No.:-637 / 2019]

Venkataraman Krishnan
Associate Partner
ACS No.:-8897/ COP No.:- 12459
UDIN:- A008897C000359027

Date: May 22, 2021
Place: Mumbai

Note: *This report is to be read with our letter of even date which is annexed as Annexure A and forms an integral part of this report.*

Annexure A

To,
The Members,
Utkal Alumina International Limited

Secretarial Audit Report of even date is to be read along with this letter.

1. The compliance of provisions of all laws, rules, regulations, standards applicable to **Utkal Alumina International Limited (the 'Company')** is the responsibility of the management of the Company. Our examination was limited to the verification of records and procedures on test check basis for the purpose of issue of the Secretarial Audit Report.

2. Maintenance of secretarial and other records of applicable laws is the responsibility of the management of the Company. Our responsibility is to issue Secretarial Audit Report, based on the audit of the relevant records maintained and furnished to us by the Company, along with explanations where so required.

3. We have followed the audit practices and processes as were appropriate to obtain reasonable assurance about the correctness of the contents of the secretarial and other legal records, legal compliance mechanism and corporate conduct. The verification was done on test check basis to ensure that correct facts as reflected in secretarial and other records produced to us. We believe that the processes and practices we followed, provides a reasonable basis for our opinion for the purpose of issue of the Secretarial Audit Report.

4. We have not verified the correctness and appropriateness of financial records and Books of Accounts of the Company.

5. Wherever required, we have obtained the management representation about the compliance of laws, rules and regulations and major events during the audit period.

6. The Secretarial Audit Report is neither an assurance as to the future viability of the Company nor of the efficacy or effectiveness with which the management has conducted the affairs of the Company.

For BNP & Associates
Company Secretaries
[Firm Regn. No. P2014MH037400]
[PR No.:-637 / 2019]

Venkataraman Krishnan
Associate Partner
ACS No.:-8897/ COP No.:- 12459
UDIN:- A008897C000359027

Date: May 22, 2021
Place: Mumbai

SOCIAL REPORT

"India's COVID case load has been the highest. We are all collectively struggling to stem this extremely challenging, and huge calamity. The Government, NGOs, corporates and other key stakeholders, have coalesced to bring COVID relief measures. Even at the cost of being repetitive, let us acknowledge our nation's doctors, medical and paramedical workers. They have and continue, to go beyond the line of duty, to bring succor to the COVID afflicted. Our population and the size of our country is beyond comparison. Enormous challenges confront us. We can overcome them with a strong sense of solidarity.

I would like to apprise you of the various initiatives we have taken through multiple channels. I will focus on the relief measures executed by us at FICCI Aditya Birla CSR Centre for Excellence, we took cognizance, of the immediate needs that were COVID driven. First and foremost, was the need to address the problem of getting food for the marginalized. We worked with ISKON, and distributed cooked meals, for lunch and supper in Delhi, Mumbai, and Noida. We reached out to thousands of families. Likewise, we distributed ration kits, in partnership with Goonj, to thousands of families in 11 states. We arranged for 90,000 PPE kits, for frontline health workers in six states. COVID-19 is also a livelihood disaster. More so for the informal sector workers, migrants, small land holding farmers, returnee migrants, villages youths and tribal women. So, with the Nudge Foundation, we launched a 3-year project, themed on "Creating Resilient Communities" in Odisha, West Bengal, Delhi NCR, Uttar Pradesh, Jharkhand, Karnataka and Maharashtra. We have impacted 4 lakh families.

If you recall we had already shared with you the immediate COVID steps taken after the outbreak of the pandemic. Besides contributing over Rs.500 crore, we tried to address related issues at every level. Here is an update:

- Providing 3,000 jumbo oxygen cylinders pan India
- We have ordered 10 oxygen Pressure Swing Adsorption plants. Of these, three PSA plants have been delivered (Gujarat and eastern UP). These plants produce 100 litres of oxygen every 60 seconds and are integral to meet the oxygen shortage.
- 1,000 oxygen concentrators supplied by Novelis
- 750 concentrators based on the Hub & Spoke model have been instituted in the major state's capitals, which then pan out to the smaller towns
- 500 oxygen concentrators supplied to various hospitals and communities across locations
- 300 oxygen cylinders refilled by Hindalco and supplied to hospitals in UP daily, after reviving the defunct Karahiya oxygen plant in Anpara, Sonebhadra
- In addition, liquid oxygen plants are on stream across the nation at our plant sites. To give you a feel, the Birla Copper Plant in Dahej, has been supplying ~ 50 tonnes of liquid oxygen day in and day out to bridge the gap. Up until now 1,600 tonnes of liquid oxygen has been supplied to the Gujarat Government
- Furthermore, specially designed 40 mobile ambulances are in service all over the country
- More than 500 beds have been earmarked across locations
- Proactive engagements with local communities, and other stakeholders, is an ongoing activity
- More than a million triple layer surgical masks, have been distributed, along with tens of thousands of personal protective equipments

- Hundreds of ventilators have also been given
- To reinforce COVID prevention messages, such as using mask, social distancing, and sanitizing, are unending

Your Company has contributed significantly to this humongous effort supporting - oxygen concentrators, PSA plants, liquid oxygen and more. A gist of Hindalco's endeavours apart from the initiatives cited above:

- Over 3,000 COVID patients treated at our hospitals and health centers in the second wave
- Dedicated medical team of 77 doctors and 275 paramedics for COVID care
- Over 450 hospital beds equipped with ICUs, ventilators, bipaps and oxygen concentrators
- PSA oxygen plants being set up in Utkal and Renukoot
- Oxygen plant donated to district hospital in Sonebhadra
- RT-PCR testing lab for communities around the Utkal plant.
- CT-Scan facility to come up in Utkal hospital, a Level-1 District Covid care facility
- Hospital at Renukoot certified as Level-2 Covid hospital supporting the community
- 30 Quarantine centres set up
- 59 Ambulances towards COVID relief services
- Supporting migrant workers and the needy with cooked food, rations, sanitizers and masks

Consequent to the extended lockdowns, our ground level activities in the 610 villages which service over a million people were constrained. Still good work is done. The spotlight continues to be on education, healthcare, sustainable livelihood, infrastructure development and social reform, in sync with the major UN SDG goals.

Mrs. Rajashree Birla
Chairperson,
Aditya Birla Centre for Community Initiatives and Rural Development
Chairperson, Hindalco CSR Board

A summary of our wok:

SDG-1: To rid poverty across all nations by 2030

This has been our unrelenting battle for decades. We are engaged in 10 states where our CSR work has made a difference. The percentage of BPL families has dropped significantly.

SDG-2: To end all forms of hunger and malnutrition by 2030

We have a holistic developmental model that addresses this issue. Sustainable agriculture, supporting particularly small-scale farmers with access to land, technology and markets are our major themes. We leverage Government Schemes and the services rendered by the District Authorities, including Collectors and Block Development Officers. We have made reasonable progress. Nevertheless, we have had to reset our target, extending it to 5% (3%) in the next 5 years.

Water positivity

Water positivity is one of the most important tasks before us. Water conservation, and water harvesting structures are our mainstay. Water is the lifeline for agriculture. Farm-based interventions, farmer training programmes, farmer producer groups, improved agriculture techniques, and animal husbandry management, take us close to the goal of sustainable agriculture. Up until now we have constructed 83 check dams,118 ponds conserving 2,23,847 m3 of water. Along with lift and drip irrigation facilities impacted over 50,000 farmers (Renukoot, Singrauli and Lohardaga). Nearly a 100 farmer clubs are functional at your Company. Towards better ecology, we developed 100 vermin compost tanks to provide manure and encourage organic farming (Renukoot, Singrauli and Lohardaga).

Towards better irrigation, we built 8 check dams, serviced 11 existing ones, excavated 16 ponds (Renukoot, Singrauli, Lohardaga and Renusagar). Consequently, farmers moved to cultivate cash crops, spanning 900 hectares of agricultural land, and reap a rich harvest.

Micro-horticulture cultivation across 450 acres of land is on the anvil. NABARD, Krishi Vigyan Kendras, the Agriculture and Horticulture wings of the Government will be our knowledge partners. Janmitram (an NGO) has been enlisted as the project implementation agency.

Our veterinary camps this year serviced a little over 40,000 cattle owners. As many as 20,000 cattle were immunized in veterinary camps. Of these 600 cattle were artificially inseminated. It has helped enhance the income of the farmers as the milk outcome notched up by 70%. In this regard, the Aditya Birla Technology Park in Muirpur (Uttar Pradesh), marches on with its endeavours towards training and income enhancement. Its pursuit to raise the earnings of the farmers continues. Its benefits have a salutary effect on the lives of 200 farm families.

SDG-3: Ensuring, healthy lives and promoting well-being for all, in all age groups

More than 7 lakh people across our units, have been the beneficiaries of our healthcare projects through more than 2,000 healthcare camps.

Through the GPS based ambulance service facility 'Jeevan Mitra Sewa Yojana' 15 ambulances are engaged, touching a 5000 strong populace. Alongside we tend to patients at our company's two hospitals and 17 dispensaries, besides supporting 9 Government/Charity run primary health centers.

Among other healthcare projects include eye camps, dental checkups and tuberculosis and general health counselling. Our touch points are in excess of 10,000 families.

We would like to add that in partnership with the District Health Department, our 26 Family Welfare Centers served 30,951 women (antenatal, post-natal care, mass immunization, nutrition and escort services for institutional delivery). Over 1,75,723 children were immunized against polio, BCG, DPT and Hepatitis-B across the Company's Units.

Towards adolescent healthcare we covered, 1,200 girls at 51 camps organized at Government Girls High Schools.

SDG-4: Education

Our close involvement with the Kasturba Gandhi Balika Vidyalayas has motivated over a 1000-girls to pursue formal education.

Our 'meet the parent' counselling programmes have not only helped dropouts come back to school but have significantly cut out the dropout rate to zero levels (15%).

To enhance the learning outcome of students, up until now we have set up 5 science laboratories at Government high schools (Mahan, Hirakud and Garepalma).

Over 83 students from the villages attended the 6-month computer literacy programmes (Renukoot and Renusagar).

Nearly 800 children are enrolled at 15 anganwadis that we support (Renusagar, Taloja, Mahan and Belagavi). Under the Integrated Child Development Scheme (ICDS) we have reached out to 64 malnourished children and helped nurture them into healthy children.

At our 9 Aditya Birla Public Schools (Renukoot, Renusagar and Muri), we have 4,848 rural students. Additionally, 1,319 students are enrolled at the 7 Aditya Birla Vidya Mandirs (Renukoot, Lohardaga, Kathautia and Samri). We also support 3,593 students of 4 other schools (Lohardaga and Dumri).

To meet the shortage of teachers in the rural areas in government primary and secondary schools (Dumri, Lohardaga and Samri), we have sponsored 27 teachers.

We have built 3 school buildings (Belagavi and Taloja) and repaired 13 school buildings (Renukoot, Renusagar and Belagavi). At several schools, sanitation facilities were constructed and drinking water facilities were set up (Nitale Manpada Primary school, Taloja).

SDG-5: Women empowerment and gender equality

Our 2000 self-help groups comprising of 24,860 women enthusiasts have all been transformed into competent and confident women, engaged in meaningful work that earns them a livelihood.

A special mention must be made of the "Kosala Livelihood and Social Foundation", a not-for-profit company. This subsidiary of Hindalco has been spawned to mentor women in the art of making textiles including sarees from Kosa silk. More importantly, reviving the ancient Kosa silk art form of Chhattisgarh. The project is housed at Gare Palma and currently encompasses 35 women from the villages surrounding our mines. There is a lot of excitement around the Gera Palma project. The women reelers who produce the yarn from cocoon and the weavers involved in the intricate weaving process based on specified designs now feel self-assured in the sense of long-term sustainability.

It might interest you to learn that the first set of sarees and fabric material produced by them evoked encouraging response. During Diwali and New Year, despite the pandemic the Kosala project revenue was nearly ₹ 30 lakhs, generating a lot of hope and optimism.

The sixth, seventh and eighth SDGs, center on water and sanitation, reliable, sustainable, modern energy, decent work and economic growth.

Towards providing accessibility to safe drinking water, up until now we have installed 27 Reverse Osmosis (RO) plants. This year we put up 5 RO plants, 24 handpumps, repaired 245 handpumps and dug wells. Pipelines and borewells provide access to water, benefiting more than 76,000 villagers.

Additionally, 1,652 individual toilets and sanitation facilities were set-up and facilitated at various locations. Consequently, 95% of the villages where we operate have been declared ODF.

Imparting vocational training, skills training, coupled with our farm / non-farm-based programmes and SHGs, meet with these goals. Collectively we have touched the lives of nearly 3,541 people.

At the Aditya Birla Rural Technology Park (ABRTP), Muirpur and Aditya Birla Skill Centre (ABSC), Dhanupali more than 14 training batches were organised. The thrust continues to be on computer literacy, training in repair of electric and electronic goods, handicrafts, bag making, beautician, tailoring and knitting, ways to enhance agricultural output, and veterinary science. This year 149 aspirants were trained. At ABRTP on capacity building, 15 additional programmes were held, registering 722 participants. Our veterinary services were availed by 2,629 farmers.

SDG-9: Build resilient infrastructure

Our infrastructure projects: connectivity, road repairs, community halls and assets, rest places, installation of solar lights, construction of water tanks and installation of piped water supply, have bettered the lives of 83,430 people.

Finally, on Model Villages. Of the 611 villages in our CSR projects, 102 villages have been earmarked for a transformative process. Up until now, 35 villages have made the cut. Impact assessment studies by external agencies have certified commended the transformation of these villages.

Accolades/Awards received:

The output of our commitment to CSR is assuring. Evident from the several accolades conferred upon us. A gist:

Utkal Alumina

- "Golden Peacock Award for Corporate Social Responsibility - 2020" for "Project WADI"
- "CSR Times Award - 2020" for Project Samriddhi (commercial vegetable farming) by First Step Foundation, Delhi

Aditya Aluminium

- Fame India's Fame Excellence Platinum Award 2020 for Excellence in Best Practices to Fight Against COVID 19
- India CSR Award under the category of women empowerment.

Mahan Aluminium

- CSR TIMES, Editor's Choice Awards 2020, for project GYAAN
- "CII National Award for Excellence in Water Management" in the Category "Beyond the fence".

Lohardaga Mines Division

- "Fame Excellence Award 2020-21" for project "Utthan – A livelihood project

Our CSR spends

This year we spent ₹ 53.99 crore (Hindalco ₹ 40.50 crore, Subsidiaries ₹ 13.49 crore). We have facilitated mobilisation of contributions of ₹ 83.66 crores from Government agencies directly to certain schemes/projects.

We have come this far because of the unflinching support of our Chairman, our Board of Directors, our Management, leadership teams, our CSR people and each and every colleague from Hindalco. All of them are a source of constant stimulation to aim even higher.

ANNEXURE VI

ANNUAL REPORT ON CORPORATE SOCIAL RESPONSIBILITY (CSR) ACTIVITIES

1. Brief Outline on CSR Policy of the Company:

For every Company in the Aditya Birla Group, reaching out to underserved communities is a part of our DNA. We believe in the trusteeship concept. This entails transcending business interest and grappling with the "quality of life" challenges that underserved communities face, and working towards making a meaningful differences to them.

Our vision is – "to actively contribute to the social and economic development of the underserved communities, lifting the burden of poverty and helping bring in inclusive growth, in so doing build a better, sustainable way of life for the weaker sections of society and raise the countriy's human development index", (Mrs. Rajashree Birla, Chairperson, Aditya Birla Centre for Community Initiatives and Rural development)

2. Composition of CSR Committee:

Sl No	Name of Director	Designation / Nature of Directorship	Number of meetings of CSR committee held during the year	Number of meetings of CSR Committee attended during the year
1	Smt. Rajashree Birla	Chairperson/Non-Executive Director	1	1
2	Mr. Y.P. Dandiwala	Member/Independent Director	1	1
3	Mr. Satish Pai	Member/Managing Director	1	1
4	Mr. A.K. Agarwala	Member/Non-Executive Director	1	1
5	Mr. D. Bhattacharya	Member/Non-Executive Director	1	1

Dr. Pragnya Ram : Group Executive President, CSR, Legacy Documentation & Archives is the permanent invitee to the committee.

3. Provide the web link where composition of CSR Committee, CSR policy and CSR projects approved by the Board are disclosed on the website of the Company

http://www.hindalco.com/sustainability/corporate-social-responsibility

4. Provide the details of Impact Assessment of CSR Projects carried out in pursuance of sub rule (3) of rule 8 of Companies (Corporate Social Responsibility Policy) Rules 2014 if applicable:

No Impact study has been carried out in this Financial Year

5. Details of the Amount available for set off in pursuance of sub rule (3) of rule 7 of Companies (Corporate Social Responsibility Policy) Rules 2014 and amount required for set off for financial year if any

Sl No	Financial Year	Amount available for set off from preceding financial year (In Cr)	Amount required to be set off for the financial year if any (In Cr)
1	Not applicable		
2			

6. Average Net Profit of the Company as per Section 135(5)

₹ 1344.36 Crore

7. (a) Two percent of average net profit of the Company as per Section 135(5)

₹ 26.89 Crore

(b) Surplus arising out of CSR projects or programs or activities of previous financial years

Nil

Annexure VI

(c) Amount required to be set off for the financial years, if any

Nil

(d) Total CSR Obligation for the financial year (7a + 7b + 7c)

₹ 26.89 Crore

8. (a) **CSR Amount Spent or Unspent for the financial year**

Total Amount Spent for the Financial Year (₹ in Lakhs)	Amount Unspent (In ₹)				
	Total Amount transferred to Unspent CSR Account as per section 135(6).		Amount transferred to any fund specified under Schedule VII as per second proviso to section 135(5).		
	Amt	Date of Transfer	Name of the Fund	Amount	Date of Transfer
4050.44	NA	NA	NA	NA	NA

(b) **Details of CSR amount spent against ongoing projects for the financial year:**

1	2	3	4	5		6	7	8	9	10	11	
Sl No	Name of the Project	Item from the list of activities in Schedule VII to the Act	Local Area (Yes/No)	Location of the Project		Project Duration	Amount allocated for the project (In ₹)	Amount Spent in the Current FY (In ₹)	Amount Transferred to Unspent CSR account for the project as per Section 135(6) (In ₹)	Mode of Implementation Direct (Yes/No)	Mode of Implementation - Through Implementing Agency	
				State	District						Name	CSR Registration Number
Nil												

(c) **Details of CSR amount spent against other than ongoing projects for the financial year:**

1	2	3	4	5		6	7	8	
Sr No	Name of the Project	Item from the list of activities in Schedule VII to the Act	Local Area (Yes/No)	Location of the Project		Amount spent for the project (₹ In Lakhs)	Mode of Implemen-tation Direct (Yes/No)	Mode of Implementation -Through Implementing Agency	
				State	District			Name	CSR Registration Number
1	Pre school education	Promoting Education	Dumri, Mahan, Renukoot, Belur, Belagavi	Jharkhand, MP, UP, WB, Karnataka	Hazaribagh, Singrauli, Sonbhadra, Howrah, Belagavi	25.10	YES	NA	NA
2	School Education Program	Promoting Education	Muri, Renukoot, Mouda	Jharkhand, UP, Maharashtra	Ranchi, Sonbhadra , Nagpur	1054.01	YES	NA	NA
3	Education support programs	Promoting Education	Belagavi, Alupuram, Renukoot, Aditya, Mahan, Kathautia	Karnataka, Kerala, UP, Odisha, MP, Jharkhand	Belagavi, Ernakulam, Sonbhadra, Sambalpur,Singrauli, Palamu	31.82	YES	NA	NA
4	Vocational and Technical Education	Employment Enhancement Vocational Skills	Kathautia, Garepalma, Mahan	Jharkhand, Chhattisgarh, MP	Palamu, Raigarh, Singrauli	59.00	YES	NA	NA
5	School Infrastructure	Promoting Education	Belagavi, Muri, Taloja, Mahan, Renukoot, Hirakud, Garepalma	Karnataka, Jharkhand, Maharashtra, MP, UP, Chhattisgarh	Belagavi, Ranchi, Taloja, Singrauli, Sonbhadra, Raigarh	140.85	YES	NA	NA
6	Preventive health	Health Care	Belur, Renukoot, Kathautia, Dumri, Chakla	West Bengal, UP, Jharkhand, Jharkhand, Jharkhand	Hazaribagh, Sonbhadra, Palamu, Hazaribagh,Latehar	1206.91	YES	NA	NA
7	Curative Health Care program	Health care	Belur, Renukoot, Kathautia, Dumri, Chakla	West Bengal, UP, Jharkhand, Jharkhand, Jharkhand	Hazaribagh, Sonbhadra, Palamu, Hazaribagh,Latehar	172.55	YES	NA	NA
8	Reproductive and Child Health	Health care	Renukoot, Mahan, Kathautia, Dumri	UP, MP, Jharkhand, Jharkhand	Sonbhadra, Singrauli, Palamu, Hazaribagh	41.53	YES	NA	NA
9	Quality / Support Program	Health care	Renukoot, Mahan	MP, UP	Singrauli, Sonbhadra	44.23	YES	NA	NA
10	Health Infrastructure	Health care	Belagavi, Alupuram, Renukoot, Mahan	Karnataka, Kerala, MP, UP	Belagavi, Ernakulam, Singrauli, Sonbhadra	650.68	YES	NA	NA
11	Agriculture and Farm Based	Ensuring Environment	Taloja, Renukoot, Aditya, Mahan, Garepalma	Maharashtra, UP, Odisha, MP, Chhattisgarh	Taloja, Sonbhadra, Sambalpur, Singrauli, Raigarh	85.26	YES	NA	NA
12	Animal Husbandary Based	Animal Welfare	Renukoot, Mouda	UP, Nagpur	Sonbhadra, Maharashtra	8.55	YES	NA	NA
13	Non farm & Skills Based Income generation Program	Enhancing Vocational skills and Livelihood Enhancement	Dumri, Mahan, Renukoot, Belagavi	Jharkhand, Singrauli, UP, Karnataka	Hazaribagh, Singrauli, Sonbhadra	54.35	YES	NA	NA
14	Natural Resource conservation programs & Non conventional Energy	Environment sustainability	Garepalma, Mahan, Renukoot, Belagavi	Chhattisgarh, MP, UP, Karnataka	Raigarh, Singrauli, Sonbhadra, Belagavi	75.14	YES	NA	NA
15	Livelihood Infrastructure	Livelihood Enhancement	Mahan, Renukoot	MP, UP	Singrauli, Sonbhadra	27.65	YES	NA	NA

Annexure VI

1	2	3	4	5		6	7	8	
Sr No	Name of the Project	Item from the list of activities in Schedule VII to the Act	Local Area (Yes/No)	Location of the Project		Amount spent for the project (₹ In Lakhs)	Mode of Implementation Direct (Yes/No)	Mode of Implementation -Through Implementing Agency	
				State	District			Name	CSR Registration Number
16	Institutional building & strengthening	Empowering women	Mahan, Renukoot	MP, UP	Singrauli, Sonbhadra	19.53	YES	NA	NA
17	Support to development organizations	Support to old age homes and orphanages	Alupuram, Aditya	Kerala, Odisha	Ernakulam, Sambalpur,	24.78	YES	NA	NA
18	Social Security	Measures for socially and economically backward groups	Mahan, Mauda, Renukoot, Kathautia, Dumri	MP, Nagpur, UP, Jharkhand, Jharkhand	Singrauli, Maharashtra, Sonbhadra, Palamu, Hazaribagh	28.58	YES	NA	NA
19	Awareness programmes	Measures for reducing inequalities	Mauda, Renukoot, Kathautia	Nagpur, UP, Jharkhand	Maharashtra, Sonbhadra, Palamu	6.04	YES	NA	NA
20	Social Events to minimise causes of poverty	Promote Gender equality and reducing inequalities	Durgmanwadi, Belagavi, Taloja, Renukoot, Mahan,	Maharashtra, Karnataka, Maharashtra, MP, UP	Kolhapur, Belagavi, Taloja, Singrauli, Sonbhadra	24.84	YES	NA	NA
21	Promotion of heritage/culture/ Sports	Promotion of Heritage	Mahan, Aditya, Renukoot	MP, Odisha, UP	Singrauli, Sambalpur, Sonbhadra	17.44	YES	NA	NA
22	Disaster Relief Programmes	Disaster Relief	CFD, Mahan	MP	Singrauli	5.74	YES	NA	NA
23	Rural Infrastructure Development	Rural development	Muri, Renukoot, Mahan, Garepalma	Jharkhand, MP, UP, Chhattisgarh	Ranchi, Sonbhadra, Singrauli, Raigarh	123.32	YES	NA	NA
	Total (In lakhs)					3927.90			

(d) Amount Spent in Administrative Overheads

₹ 122.54 lakhs

(e) Amount Spent on Impact Assessment, if applicable

Nil

(f) Total Amount Spent for the financial year (8b + 8c + 8d + 8e)

₹ 4050.44 Lakhs including Administrative Overheads

(g) Excess Amount for Set off if any:

Sl No	Particular	₹ In Lakhs
(i)	Two percent of Average Net Profit of the Company as per Section 135(5)	2688.73
(ii)	Total Amount spent for the financial year	4050.44
(iii)	Excess Amount Spent for Financial Year [ii-i]	1361.71
(iv)	Surplus arising out of the CSR Projects or programs or activities of the previous financial years, if any	NIL
(v)	Amount available for set-off in succeeding financial Year [iii-iv]	1361.71

9. (a) Details of Unspent CSR Amount for the preceding three Financial Years:

Sl No	Preceding Financial Year	Amount Transferred to Unspent CSR Account under Section 135(6)	Amount spent in Reporting Financial Year (In ₹)	Amount Transferred to any fund specified in Schedule VII as per Section 135(6) if any			Amount remaining to be spent in succeeding financial years (In ₹)
				Name of the Fund	Amt in ₹	Date of Transfer	
NA							

(b) Details of CSR Amount Spent in the financial year for ongoing projects of the preceding financial year(s):

1	2	3	4	5	6	7	8	9
Sl No	Project ID	Name of the Project	Financial Year in which the project was commenced	Project Duration	Total Amount allocated for the Project (In ₹)	Amount spent on the Project in the Reporting Financial Year (In ₹)	Cumulative Amount Spent at the end of Reporting Financial Year (In ₹)	Status of the Project Completed/ Ongoing
NA								

10. In case of creation or acquisition of capital asset, furnish the details relating to the asset so created or acquired through CSR spent in the Financial Year

(Asset-wise details)

Date of creation or acquisition of the capital asset (s)	Amount of CSR spent for creation or acquisition of capital asset (₹)	Details of the entity or public authority or beneficiary under whose name such capital asset is registered, their address etc.	Provide details of the capital asset(s) created or acquired (including complete address and location of the capital asset)
04/09/2020	7,16,992	Eloor Municipality Office, Udyogamandal, P O Eloor, Kochi - 683501	Ambulance
29/08/2020	30,316	The Medical Officer, Community Health Centre, Keredari, Hazaribag, Jharkhand 825311	Air Conditioner (1.5 Ton)

Date of creation or acquisition of the capital asset (s)	Amount of CSR spent for creation or acquisition of capital asset (₹)	Details of the entity or public authority or beneficiary under whose name such capital asset is registered, their address etc.	Provide details of the capital asset(s) created or acquired (including complete address and location of the capital asset)
31/03/2021	2,21,321	Saraswati Sishu Mandir School, R & R Colony, Majhigawan, Post: Pokhara, Tehsil: Deosar, Dist: Singrauli, Madhya Pradesh, Pin: 486892	Construction of Boundary and maintenance Work
02/07/2020	20,51,978	Gidher Inside Gidher Tower on Durghata Devi Road, Gram: Gidher, Post: Odgadi, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486886	Installation of Hand Pump
31/03/2021		Majhigawan, Badokhar Bypass Road, Gram: Majhigawan, Post: Pokhara, Tehsil: Deosar, Dist. Singrauli Madhya Pradesh, Pin: 486892	
31/08/2020		Ghinhagawn, Near Pokhara Panchayat Bhawan, gram: Ghinhagao, Post: Pateri, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486892	
31/08/2020		Pokhra, Near Hasua Mod Tiraha, Gram: Pokhara, Post: Pokhra, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486892	
31/08/2020		Dharsada, Near Middle School, Gram: Dharsada, Post: Pateri, Tehsil: Chitrangi, Dist. Singrauli, Madhya Pradesh, Pin: 486892	
02/07/2020		Badokhar, Near Badokhar Chauraha(Bhalugadh Road), Gram: Badokhar, Post: Daga Bargawan, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486886	
02/07/2020		Bareniya, Near Hindalco Gate No 4, Gram: Bareniya, Post: Daga Bargawan, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486886	
31/08/2020		Bargawan, Near Boys Hostel (Aadiwasi), Gram: Bargawan, Post: Daga, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486886	
31/08/2020		Daga, Near Bargawan Railway Colony , Gram: Daga, Post: Daga Bargawan, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486886	
31/08/2020		Kanai, Near Govt. Middle School, Gram: Kanei, Post: Daga Bargawan, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486886	
31/08/2020		Bhalugadh, Near Orphanage, Gram: Bhalugadh, Post: Gondwali, Tehsil: Chitrangi, Dist. Singrauli, Madhya Pradesh, Pin: 486892	
02/07/2020		Barhwatola, Near Govt. Rice Mill, Gram: barahwatola, Post: Daga Bargawan, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486886	
02/07/2020		Odgadi, Kashidol Tola , Gram: Odgadi, Post: Odgadi, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486886	
02/07/2020		Jobgadh, Near Khekra Playground, Gram: Jobgadh, Post: Bargawan, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486886	
31/08/2020		Baghadih, Near Betahadand Road, Gram: Baghadih, Post: Odgadi, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486899	
02/07/2020		Sajhar, Jogni, Gram: Sajhar, Post: Chanduwar, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486881	
31/03/2021	1,46,000	Badokhar, Near Badokhar Chauraha (Bhalugadh Road), Gram: Badokhar, Post: Daga Bargawan, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486886	Construction of Water Harvesting Pits
31/03/2021		Odgadi, Kashidol Tola , Gram: Odgadi, Post: Odgadi, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486886	
31/03/2021		Barhwatola, Near Govt. Rice Mill, Gram: barahwatola, Post: Daga Bargawan, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486886	

Date of creation or acquisition of the capital asset (s)	Amount of CSR spent for creation or acquisition of capital asset (₹)	Details of the entity or public authority or beneficiary under whose name such capital asset is registered, their address etc.	Provide details of the capital asset(s) created or acquired (including complete address and location of the capital asset)
28/01/2021	11,29,436	Jobgadh, Near Khekra Playground, Gram: Jobgadh, Post: Bargawan, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486886	Construction of Check Dams
28/01/2021		Baghadih, Near Betahadand Road, Gram: Baghadih, Post: Odgadi, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486899	
02/07/2020	75,760	PHC Hospital, Bargawan, Tehsil: Deosar, Dist. Singrauli, Madhya Pradesh, Pin: 486886	Construction of Platform and Miscellaneous Expenditure
28/12/2020	36,580	Rural Hospital, Mouda Distt. : Nagpur (M. H.) Pin : 441104	RO Filter at CMO
31/03/2021	9,15,000	Nitalemanpada Post Wavanje Panvel Dist – Raigad Maharashtra - 410208	Construction of Anganwadi

11. Specify the reason(s), if the company has failed to spend two percent of the average net profit as per Section 135(5) - *Not applicable*

Mr. Satish Pai
(Managing Director)
(DIN:06646758)

Mrs. Rajashree Birla
(Chairperson, CSR Committee)
(DIN:00022995)

Place : Mumbai
Dated : 19.05.2021

ANNEXURE VII

FINANCIAL INFORMATION RELATING TO SUBSIDIARY COMPANIES FOR THE YEAR ENDED 31ST MARCH 2021 Sec.129(3)

Figures INR in Crore & FC in Million

Sr.	Name of the Subsidiary Company	Country	Reporting currency	Capital	Reserves	Total Assets	Total Liabilities	Investments: Shares, Debnture, Bonds & Others	Turnover/ Revenues	Profit/(Loss) before Tax	Provision for Tax	Gain/ Loss from Discontinued Operations	Profit/(Loss) after Tax .	Proposed Dividend	% of Share Holding
1	Minerals and Minerals Limited {}	India	INR	0.05	10.77	31.13	20.31	0.00	40.52	1.38	1.19	-	0.20	-	100
2	Renuka Investments and Finance Limited {}	India	INR	9.25	146.27	156.17	0.65	146.24	5.89	5.62	1.16	-	4.46	-	100
3	Renukeshwar Investsment and Finance Limted {}	India	INR	4.80	74.75	79.55	0.00	74.39	3.46	3.45	0.73	-	2.72	-	100
4	Suvas Holding Limited {}	India	INR	29.93	(0.46)	38.15	8.68	1.24	4.10	0.82	0.26	-	0.56	-	74
5	Utkal Alumina International Limited {}	India	INR	6,251.48	1,740.05	11,432.67	3,441.14	1,967.16	2,935.35	945.19	339.72	-	605.47	-	100
6	Hindalco-Almex Aerospace Limited {}	India	INR	88.56	9.72	106.48	8.20	20.37	89.60	5.55	0.09	-	5.46	-	97.18
7	Lucknow Finance Company Limited {}	India	INR	9.90	7.61	18.73	1.22	9.82	2.72	2.31	0.62	-	1.69	-	100
8	Dahej Harbour and Infrastructure Limited {}	India	INR	50.00	31.76	133.11	51.35	73.28	41.53	(8.36)	(0.96)	-	(7.39)	-	100
9	East Coast Bauxite Mining Co.Pvt.Ltd. {}	India	INR	0.01	(0.04)	0.01	0.04	0.00	0.16	(0.01)	-	-	(0.01)	-	74
10	Utkal Alumina Social Welfare Foundation@	India	INR	0.10	(0.01)	0.09	(0.01)	0.00	-	(0.01)	-	-	(0.01)	-	100
11	Kosala Livelihood and Social Foundation	India	INR	0.10	(0.00)	0.10	0.00	0.00			-	-	-	-	
12	A V Minerals (Netherlands) N.V. *	Netherlands	INR	12,733.97	(1,086.38)	11,647.45	(0.14)	0.00	-	(0.61)	-	-	(0.61)	-	100
			USD	1,740.84	(148.52)	1,592.30	(0.02)	0.00	-	(0.08)	-		(0.08)	-	
13	A V Metals Inc. #*	Canada	INR		11,437.94	11,437.96	0.01	0.00	-	-	-		-	-	100
			USD	-	1,563.66	1,563.66	0.00	0.00	-	-	-		-	-	
14	Novelis Inc. ##*	Canada	INR	11,557.45	(3,597.49)	19,484.07	11,524.11	0.00	3,652.05	1,400.93	35.33	(159.24)	1,206.36	-	100
			USD	1,580.00	(491.81)	2,663.63	1,575.44	0.00	491.95	188.71	4.76	(21.45)	162.50	-	
15	4260848 Canada Inc.*	Canada	INR	897.12	(607.02)	294.39	4.29	0.00	-	86.95	2.54	-	84.41	-	100
			USD	122.64	(82.98)	40.25	0.59	0.00	-	11.71	0.34	-	11.37	-	
16	4260856 Canada Inc.*	Canada	INR	1,345.71	(921.42)	430.70	6.40	0.00	-	129.72	3.79	-	125.94	-	100
			USD	183.97	(125.97)	58.88	0.88	0.00	-	17.47	0.51	-	16.96	-	
17	Novelis South America Holdings LLC*	USA	INR	0.01	(0.01)	-	-	0.00	-	-	-	-	-	-	100
			USD	0.00	(0.00)	-	-	0.00	-	-	-	-	-	-	
18	Novelis Corporation*	USA	INR	0.29	(5,068.01)	32,702.00	37,769.72	0.00	29,892.34	488.76	143.18	(0.15)	345.43	-	100
			USD	0.04	(692.84)	4,470.63	5,163.43	0.00	4,026.64	65.84	19.29	(0.02)	46.53	-	

ANNEXURE VII

Sr.	Name of the Subsidiary Company	Country	Reporting currency	Capital	Reserves	Total Assets	Total Liabilities	Investments Shares, Debnture, Bonds & Others	Turnover/ Revenues	Profit/(Loss) before Tax	Provision for Tax	Gain/ Loss from Discontinued Operations	Profit/(Loss) after Tax .	Proposed Dividend	% of Share Holding
19	Novelis de Mexico SA de CV*	Mexico	INR	0.05	(0.05)	-	-	0.00	-	-	-	-	-	-	100
			USD	0.01	(0.01)	-	-	0.00	-	-	-	-	-	-	
20	Novelis do Brasil Ltda.*	Brazil	INR	1,244.98	4,748.95	12,506.29	6,512.36	0.00	13,234.93	2,442.81	702.79	-	1,740.02	-	100
			BRL	958.53	3,656.28	9,628.76	5,013.96	0.00	9,627.61	1,776.99	511.24	-	1,265.76	-	
21	Novelis Korea Limited*	South Korea	INR	2,750.73	1,377.66	10,413.47	6,285.09	0.00	14,327.88	1,078.89	281.41	-	797.48	-	100
			KRW	416,777.00	208,736.00	1,577,799.00	952,286.00	0.00	2,170,891.00	163,468.00	42,638.00	-	120,830.00	-	
22	Novelis UK Ltd*	United Kingdom	INR	1,473.32	952.13	3,459.83	1,034.38	0.00	2,762.91	67.18	15.59	-	51.59	-	100
			GBP	146.10	94.41	343.08	102.57	0.00	284.75	6.92	1.61	-	5.32	-	
23	Novelis Services Limited*	United Kingdom	INR	1,470.36	2,379.67	3,853.36	3.34	0.00	202.60	233.20	14.48	-	218.72	-	100
			USD	201.01	325.32	526.79	0.46	0.00	27.29	31.41	1.95	-	29.46	-	
24	Novelis Deutschland GmbH*	Germany	INR	2,923.52	38.35	9,806.72	6,844.84	0.00	20,550.34	295.61	-	-	295.61	-	100
			EUR	340.80	4.47	1,143.17	797.91	0.00	2,373.60	34.14	-	-	34.14	-	
25	Novelis Aluminum Beteiligungs GmbH*	Germany	INR	0.21	0.19	0.40	-	0.00	-	(0.00)	-	-	(0.00)	-	100
			EUR	0.03	0.02	0.05	-	0.00	-	(0.00)	-	-	(0.00)	-	
26	Novelis Switzerland SA*	Switzerland	INR	38.68	3,409.22	4,730.49	1,282.59	0.00	4,744.61	73.42	12.48	-	60.94	-	100
			CHF	5.00	440.64	611.42	165.78	0.00	589.81	9.13	1.55	-	7.57	-	
27	Novelis Lamines France SAS*	France	INR	26.59	27.24	55.42	1.58	0.00	7.46	0.14	-	-	0.14	-	100
			EUR	3.10	3.18	6.46	0.18	0.00	0.86	0.02	-	-	0.02	-	
28	Novelis Italia SPA*	Italy	INR	462.00	116.54	1,158.01	579.47	0.00	1,708.57	62.36	0.88	-	61.48	-	100
			EUR	53.86	13.58	134.99	67.55	0.00	197.34	7.20	0.10	-	7.10	-	
29	Novelis Aluminum Holding Unlimited Company*	Ireland	INR	25.74	2,525.02	8,748.09	6,197.34	0.00	-	73.69	(109.55)	-	183.24	-	100
			EUR	3.00	294.34	1,019.77	722.43	0.00	-	8.51	(12.65)	-	21.16	-	
30	Novelis PAE SAS*	France	INR	34.66	96.80	226.29	94.83	0.00	131.31	(0.34)	(0.71)	-	0.38	-	100
			EUR	4.04	11.28	26.38	11.05	0.00	15.17	(0.04)	(0.08)	-	0.04	-	
31	Novelis Europe Holdings Limited*	United Kingdom	INR	359.14	1,691.54	5,527.99	3,477.31	0.00	-	(142.72)	-	-	(142.72)	-	100
			USD	49.10	231.25	755.72	475.38	0.00	-	(19.23)	-	-	(19.23)	-	
32	Novelis AG*	Switzerland	INR	7.74	1,562.54	7,474.51	5,904.24	0.00	6,312.84	59.54	0.31	-	59.22	-	100
			CHF	1.00	201.96	966.09	763.13	0.00	784.76	7.40	0.04	-	7.36	-	

Sr.	Name of the Subsidiary Company	Country	Reporting currency	Capital	Reserves	Total Assets	Total Liabilities	Investments Shares, Debnture, Bonds & Others	Turnover/ Revenues	Profit/(Loss) before Tax	Provision for Tax	Gain/ Loss from Discontinued Operations	Profit/(Loss) after Tax .	Proposed Dividend	% of Share Holding
33	Novelis Holdings Inc.*	USA	INR	0.00	1,039.41	11,332.24	10,292.83	0.00	-	(357.42)	(69.60)	-	(287.82)	-	100
			USD	0.00	142.10	1,549.21	1,407.11	0.00	-	(48.15)	(9.38)	-	(38.77)	-	
34	8018227 Canada Inc.*	Canada	INR	-	(706.27)	1,855.54	2,561.81	0.00	-	(39.31)	2.97	-	(42.28)	-	100
			USD	-	(96.55)	253.67	350.22	0.00	-	(5.30)	0.40	-	(5.70)	-	
35	Novelis Sheet Ingot GmbH*	Germany	INR	171.57	-	4,935.02	4,763.45	4,289.25	793.26	(6.89)	-	-	(6.89)	-	100
			EUR	20.00	-	575.28	555.28	500.00	91.62	(0.80)	-	-	(0.80)	-	
36	Novelis MEA Ltd*	UAE, Dubai	INR	6.67	262.07	1,610.91	1,342.17	0.00	3,677.42	215.78	-	-	215.78	-	100
			USD	0.91	35.83	220.22	183.49	0.00	495.37	29.07	-	-	29.07	-	
37	Novelis (Shanghai) Aluminum Trading Company*	China	INR	24.72	105.57	144.90	14.61	0.00	34.23	4.25	1.75	-	2.50	-	100
			CNY	22.14	94.57	129.80	13.09	0.00	31.23	3.88	1.60	-	2.28	-	
38	Novelis (China) Aluminum Products Co., Ltd.*	China	INR	945.87	544.39	3,733.80	2,243.54	0.00	2,235.71	418.26	107.07	-	311.20	-	100
			CNY	847.31	487.67	3,344.74	2,009.77	0.00	2,039.82	381.61	97.68	-	283.93	-	
39	Novelis Vietnam Company Limited*	Vietnam	INR	6.66	20.60	38.42	11.16	0.00	0.10	(5.19)	0.09	-	(5.28)	-	100
			VND	20,820.00	64,379.18	120,071.80	34,872.62	0.00	306.68	(16,213.47)	281.24	-	(16,494.71)	-	
40	Novelis Services (North America) Inc.*	USA	INR	-	-	0.04	0.04	0.00	-	-	-	-	-	-	100
			USD	-	-	0.01	0.01	0.00	-	-	-	-	-	-	
41	Novelis Services (Europe) Inc.*	USA	INR	-	-	2.34	2.34	0.00	-	-	-	-	-	-	100
			USD	-	-	0.32	0.32	0.00	-	-	-	-	-	-	
42	Brecha Energetica Ltda*	Brazil	INR	0.00	-	0.00	-	0.00	-	-	-	-	-	-	100
			BRL	0.00	-	0.00	-	0.00	-	-	-	-	-	-	
43	Novelis Global Employement, Organization, Inc.*	USA	INR	2.38	(0.63)	35.60	33.85	0.00	-	(0.68)	(0.14)	-	(0.53)	-	100
			USD	0.33	(0.09)	4.87	4.63	0.00	-	(0.09)	(0.02)	-	(0.07)	-	
44	Novelis (India) Infotech Ltd.	India	INR	-	-	-	-	0.00	-	-	-	-	-	-	100
			INR					0.00						-	
45	Aleris Deutschland Holding GmbH*	Germany	INR	4,892.73	(1,355.95)	4,124.30	587.52	0.00	0.22	2.13	2.13	-	-	-	100
			EUR	570.35	(158.06)	480.77	68.49	0.00	0.03	0.25	0.25	-	-	-	
46	Aleris Rolled Products Germany GmbH*	Germany	INR	836.81	375.50	3,155.73	1,943.42	0.00	4,497.11	(31.44)	8.59	-	(40.03)	-	100
			EUR	97.55	43.77	367.86	226.55	0.00	519.42	(3.63)	0.99	-	(4.62)	-	
47	Aleris Casthouse Germany GmbH*	Germany	INR	378.41	0.01	651.34	272.92	0.00	1,546.84	(36.39)	(1.53)	-	(34.86)	-	100
			EUR	44.11	0.00	75.93	31.81	0.00	178.66	(4.20)	(0.18)	-	(4.03)	-	

ANNEXURE VII

Sr.	Name of the Subsidiary Company	Country	Reporting currency	Capital	Reserves	Total Assets	Total Liabilities	Investments Shares, Debnture, Bonds & Others	Turnover/ Revenues	Profit/(Loss) before Tax	Provision for Tax	Gain/ Loss from Discontinued Operations	Profit/(Loss) after Tax .	Proposed Dividend	% of Share Holding
48	Aleris Corporation*	USA	INR	9,580.79	(143.88)	15,069.87	5,632.96	0.00	-	(146.02)	-	-	(146.02)	-	100
			USD	1,309.77	(19.67)	2,060.18	770.07	0.00	-	(19.67)	-	-	(19.67)	-	
49	Aleris International, Inc.*	USA	INR	15,019.11	6.07	20,193.10	5,167.92	0.00	-	39.46	-	-	39.46	-	100
			USD	2,053.24	0.83	2,760.56	706.50	0.00	-	5.32	-	-	5.32	-	
50	Aleris Rolled Products, Inc.*	USA	INR	11,657.00	(1,596.17)	12,306.32	2,245.49	0.00	3,321.28	(547.05)	-	(1,114.93)	(1,661.97)	-	100
			USD	1,593.61	(218.21)	1,682.38	306.98	0.00	447.39	(73.69)	-	(150.19)	(223.88)	-	
51	UWA Acquisition Co.*	USA	INR	8.07	(1.32)	15.27	8.52	0.00	-	(1.34)	-	-	(1.34)	-	100
			USD	1.10	(0.18)	2.09	1.17	0.00	-	(0.18)	-	-	(0.18)	-	
52	Aleris RM, Inc.*	USA	INR	7.48	(1.71)	159.09	153.33	0.00	-	0.08	1.82	-	(1.74)	-	100
			USD	1.02	(0.23)	21.75	20.96	0.00	-	0.01	0.25	-	(0.23)	-	
53	Aleris Rolled Products, LLC*	USA	INR	2,248.67	(302.21)	3,060.96	1,114.51	0.00	3,088.04	190.11	-	(496.82)	(306.71)	-	100
			USD	307.41	(41.32)	418.46	152.36	0.00	415.97	25.61	-	(66.92)	(41.32)	-	
54	Aleris Rolled Products Sales Corporation*	USA	INR	0.02	(18.05)	103.62	121.65	0.00	-	(18.32)	-	-	(18.32)	-	100
			USD	0.00	(2.47)	14.17	16.63	0.00	-	(2.47)	-	-	(2.47)	-	
55	IMCO Recycling of Ohio, LLC*	USA	INR	177.19	8.76	563.40	377.45	0.00	231.67	8.89	-	-	8.89	-	100
			USD	24.22	1.20	77.02	51.60	0.00	31.21	1.20	-	-	1.20	-	
56	Nichols Aluminum LLC*	USA	INR	1,565.70	327.14	2,221.95	329.11	0.00	2,246.06	332.01	-	-	332.01	-	100
			USD	214.04	44.72	303.76	44.99	0.00	302.56	44.72	-	-	44.72	-	
57	Nichols Aluminum-Alabama LLC*	USA	INR	2.35	(2.46)	37.72	37.83	0.00	-	(2.49)	-	-	(2.49)	-	100
			USD	0.32	(0.34)	5.16	5.17	0.00	-	(0.34)	-	-	(0.34)	-	
58	Name Acquisition Co.*	USA	INR	70.16	(30.35)	42.13	2.32	0.00	-	(28.51)	2.29	-	(30.80)	-	100
			USD	9.59	(4.15)	5.76	0.32	0.00	-	(3.84)	0.31	-	(4.15)	-	
59	Aleris Holding Canada ULC*	Canada, Nova Scotia	INR	-	0.03	0.03	-	0.00	-	0.03	-	-	0.03	-	100
			USD	-	0.00	0.00	-	0.00	-	0.00	-	-	0.00	-	
60	Aleris Aluminum Netherlands B.V.*	Netherlands	INR	6,569.55	(720.18)	5,869.67	20.30	0.00	-	(546.54)	1.70	-	(548.24)	-	100
			USD	765.82	(83.95)	684.23	2.37	0.00	-	(63.13)	0.20	-	(63.32)	-	
61	Aleris Switzerland GmbH*	Switzerland	INR	0.15	31.75	125.01	93.10	0.00	-	1.48	0.06	-	1.42	-	100
			CHF	0.02	4.10	16.16	12.03	0.00	-	0.18	0.01	-	0.18	-	

Sr.	Name of the Subsidiary Company	Country	Reporting currency	Capital	Reserves	Total Assets	Total Liabilities	Investments Shares, Debnture, Bonds & Others	Turnover/ Revenues	Profit/(Loss) before Tax	Provision for Tax	Gain/ Loss from Discontinued Operations	Profit/(Loss) after Tax .	Proposed Dividend	% of Share Holding
62	Aleris Aluminum Poland Sp. z o.o.*	Poland	INR	0.38	0.01	0.63	0.24	0.00	1.30	0.01	-	-	0.01	-	100
			PLN	0.20	0.00	0.32	0.12	0.00	0.66	0.00	-	-	0.00	-	
63	Aleris Aluminum France S.a.r.L*	France	INR	0.32	1.79	10.42	8.32	0.00	5.52	0.15	0.38	-	(0.23)	-	100
			EUR	0.04	0.21	1.22	0.97	0.00	0.64	0.02	0.04	-	(0.03)	-	
64	Aleris Aluminum UK Limited*	United Kingdom	INR	0.00	0.62	1.09	0.47	0.00	2.43	0.19	0.04	-	0.16	-	100
			USD	0.00	0.06	0.11	0.05	0.00	0.25	0.02	0.00	-	0.02	-	
65	Aleris Aluminum Denmark ApS*	Denmark	INR	0.14	0.23	0.67	0.30	0.00	-	(0.01)	0.00	-	(0.01)	-	100
			USD	0.13	0.19	0.58	0.26	0.00	-	(0.01)	0.00	-	(0.01)	-	
66	Aleris Aluminum Japan, Ltd.*	Japan	INR	0.79	1.04	2.82	0.99	0.00	0.43	0.03	0.03	-	0.00	-	100
			JPY	12.00	15.77	42.74	14.97	0.00	6.10	0.42	0.39	-	0.03	-	
67	Aleris Asia Pacific International (Barbados) Ltd.*	Barbados	INR	20.25	(0.03)	20.74	0.52	0.00	-	0.01	-	-	0.01	-	100
			USD	2.77	(0.00)	2.83	0.07	0.00	-	0.00	-	-	0.00	-	
68	Aleris (Shanghai) Trading Co., Ltd.*	China	INR	48.83	(14.89)	131.15	97.21	0.00	373.85	27.71	7.01	-	20.70	-	100
			CNY	43.74	(13.34)	117.48	87.08	0.00	341.09	25.28	6.40	-	18.88	-	
69	Aleris Asia Pacific Limited*	Hong Kong	INR	3,586.94	(1,588.71)	2,011.69	13.46	0.00	19.89	(1,601.39)	-	-	(1,601.39)	-	100
			USD	490.36	(217.19)	275.01	1.84	0.00	2.68	(215.71)	-	-	(215.71)	-	
70	Aleris Aluminum (Zhenjiang) Co., Ltd.*	China	INR	3,273.72	(1,744.63)	3,103.25	1,574.16	0.00	932.14	(18.26)	-	-	(18.26)	-	100
			CNY	2,932.60	(1,562.84)	2,779.89	1,410.14	0.00	850.46	(16.66)	-	-	(16.66)	-	
71	Hindalco Do Brazil Industria Comercia de Alumina LTDA*	Brazil	INR	1,007.43	(941.66)	231.15	165.38	0.00	236.26	(9.90)	-		(9.90)	-	100
			Reais	24.45	(22.86)	5.61	4.01	0.00	5.89	(0.25)	-		(0.25)	-	

Deutsche Aluminium Verpackung Recycling GmbHAssociate Company – Not consolidated with 20% ownership

France Aluminium Recyclage SA Associate Company – Not consolidated with 30% ownership

 # Subsidiary of AV Minerals (Netherlands) N.V.

Subsidiary of AV Metals Inc.

@ Subsidiary of Utkal Alumina Interanational Limited

% De-registered/Dissolved/Liquidated etc. -

$ Under Liquidation

^ Held for Sale

** Balance sheet items are translated at closing exchange rate and Profit/(Loss) items are translated at average exchange rate.*

{} For Indian Entities Revenue includes Turnover + Other Income

ANNEXURE VII

List of Subsidiaries which have been liquidated / amalgameted / sold during FY 20-21
a. Novelis Acquisitions LLC – Company merged into Aleris Corporation after Aleris acquisition on April 14, 2020.
b. Aleris Aluminum Duffel BV and Aleris Aluminum Italy S.r.l. - companies was sold to LIBERTY (Alvance) on September 30, 2020.
c. Aleris Rolled Products Canada ULC and Aleris Rolled Products Mexico, S.de R.L.de C.V. were divested as part of the sale of the Lewisport Plant to Velocium ABS Corp. on December 1, 2020.
d. Aleris Worldwide, Inc. merged into Aleris Ohio Management, Inc. on December 12, 2020.
e. Intl Acquisition Co. merged into Aleris International, Inc. on December 12, 2020.
f. Aleris Ohio Management, Inc. merged into Aleris International, Inc. on December12, 2020.
g. Aleris Deutschland Vier GmbH & Co. KG was dissolved on December 15, 2020.
h. Dutch Aluminum C.V. was dissolved on December 11, 2020.
i. Aleris Holding Luxembourg S.à r.l. was liquidated on December 31, 2020.
j. Aleris Deutschland Vierte Verwaltungs GmbH merged into Aleris Deutschland Holding GmbH on Febraury 2, 2021.

From Ccy	*To Ccy*	*Avg spot rate for the year*	*Closing rate for 31st March 2021*
AUD	*INR*	*53.3214*	*55.5819*
BRL	*INR*	*13.7469*	*12.9885*
CAD	*INR*	*56.1948*	*58.2068*
CHF	*INR*	*80.4429*	*77.3690*
CNY	*INR*	*10.9604*	*11.1632*
EUR	*INR*	*86.5786*	*85.7849*
GBP	*INR*	*97.0311*	*100.8462*
JPY	*INR*	*0.7002*	*0.6606*
NOK	*INR*	*8.1167*	*8.5504*
SEK	*INR*	*8.3712*	*8.3771*
SGD	*INR*	*54.3439*	*54.3774*
USD	*INR*	*74.2364*	*73.1485*

From Ccy	*To Ccy*	*Avg spot rate for the year*	*Closing rate for 31st March 2021*
BRL	***USD***	*0.1852*	*0.1776*
CHF	***USD***	*1.0840*	*1.0577*
CNY	***USD***	*0.1477*	*0.1526*
EUR	***USD***	*1.1669*	*1.1728*
GBP	***USD***	*1.3078*	*1.3787*
JPY	***USD***	*0.0094*	*0.0090*
SEK	***USD***	*0.1129*	*0.1145*
SGD	***USD***	*0.7323*	*0.7434*

List of Subsidiaries which are yet to commence operations:
East Coast Bauxite Mining Co Pvt Ltd.

Part "B" - Statement pursuant to Section 129 (3) of the Companies Act, 2013 related to Associate Companies and Joint Ventures

Sr. No.	Name of Associates / Joint Ventures	Latest Audited Balance Sheet Date	Number of shares	Amount of investment (Rs. in crore)	Extent of Holding% attributable	Networth to Shareholding as per latest audited balance sheet (Rs. in Crore)	Considered in consolidation (Rs. in Crore)	Not considered in consolidation	Description of how there is significant influence	Base on why the associate / joint venture is not considered
Associates										
1	Aditya Birla Science and Technology Company Private Limited	31-Mar-21	9,800,000	9.80	49.00	22.90	4.49		Note A	
2	Aditya Birla Renewables Subsidiary Ltd	31-Mar-21	6,895,200	6.90	26.00	7.56	1.21		Note A	
3	Aditya Birla Renewable Utkal Limited (ABRUL)	31-Mar-21	1,274,000	1.27	26.00	1.52	0.07		Note A	
4	**Associates of Novelis Inc. @**		3,001.00	2.17		(1.62)	0.07			
5	Aditya Birla Renewable Solar Limited	31-Mar-21			26.00				Note A	
Joint Ventures										
1	Hydromine Global Minerals (GMBH) Limited	31-Mar-21	66,562	1.37	45.00	30.45	-		Note B & C	
2	MNH Shakti Limited	31-Mar-21	12,765,000	12.77	15.00	13.41	0.82		Note C	
Joint Operations										
1	Mahan Coal Limited	31-Mar-20	41,250,000	19.25	50.00	11.57	1.19			
2	Tubed Coal Mines Limited	31-Mar-20	15,296,700	0.00	60.00	1.72	(0.08)			
3	Associates of Novelis Inc. ©		10,041.00	2,227.58		92.38	46.21			
@ - Associates of Novelis Inc.										
	Deutsche Aluminium VerpackungReccling GMBH	31-Dec-20	3,000	0.39	20%	(0.05)	0.06	Equity		
	France Aluminium Recyclage SA	31-Dec-20	1	1.79	30%	(1.57)	0.01	Equity		
© - Joint Operations of Novelis Inc.										
	Aluminium Norf GmbH	31-Dec-20	1	263	50%	147	14	Equity		
	Ulsan Aluminium Limited	31-Mar-21	5,000	1,942	50%	71	32	Equity		
	Logan Aluminum Inc.	31-Mar-21	40	0.00	40%	(125)	1	Consolidated		
	AluInfra Services SA	31-Dec-20	5,000	23	50%	-	-	Equity		

Note A There is significant influence due to percentage holding of share capital

Note B Non-availability of financial statements

Note C The Group has joint control over the joint arrangements

BUSINESS RESPONSIBILITY REPORT

Building Sustainable Businesses at the Aditya Birla Group:

Aditya Birla Group is set on a path of becoming a leading Indian conglomerate for building sustainable practices throughout its operations worldwide. We foresee a future built of "Sustainable Businesses" which would continue to flourish in a "Sustainable World" with growing needs and stringent environmental and legal constraints. Transcending towards a "Sustainable World", we envision a future which would contain only "Sustainable Businesses". On our path of transformation towards a Sustainable World, we integrate innovation with our existing sustainability models with an ambition to make our business sustainable in every sense of its term.

In an attempt to make our company and business endeavours adaptable for the future world, we have committed ourselves to operate within the constraints of a two-degree sustainable world - a pledge entered into by all nations at the historic United Nations Paris Agreement 2015 on Climate Change. Being well aware of our operational implications on the environment, we take efforts to mitigate these impacts thereby contributing towards the creation of a sustainable planet.

Preparing ourselves for a sustainable future, we ponder over a question about the status quo of sustainable ways today – "If everyone and every business followed the law as written today, is the planet sustainable?" Rapid growth of population, which is estimated to reach 9 billion by 2050, coupled with the challenges of climate change, scarcity of natural resources, increased pollution levels, large volume of waste generation and loss of biodiversity pose a threat to the sustenance of our planet. It calls for collective efforts from leaders across the globe to unite international bodies and governments to mitigate these ecological risks and control the damage caused till date. For us at Aditya Birla Group it is imperative to be ahead in leading this change for better.

We work to strengthen our management systems in order to contribute effectively in building a sustainable business. This forms the initial step of our programme to transform to a sustainable business. Further as part of this programme, our "Responsible Stewardship" agenda focusses on moving past mere legal compliances and conforming to the international standards set by the global bodies of the International Finance Corporation (IFC), the Organisation for Economic Cooperation and Development (OECD), the International Standards Organisation (ISO), Occupational Health and Safety Advisory Services (OHSAS), the Global Reporting Initiative (GRI), the Forestry Stewardship Council and others. We have adopted a Group wide Sustainable Business Framework of Policies, and formulated Technical Standards, and Guidance Notes for our leadership, as well as our managers, employees and contract workers to inculcate a sense of ownership among them towards their performance contributions in building a sustainable business. Our Group Sustainable Business Framework is currently certified to 14 international standards (http://sustainability.adityabirla.com/).

We have seen subsequent reductions in our number of accidents, and consumption of energy and water. We have also been successful in implementing our Biodiversity plans. As part of our World Business Council for Sustainable Development's Water and Sanitation and Hygiene (WASH) pledge we aim to provide safe drinking water, sanitation and hygiene for every employee at all our operational sites. This programme led us to build new bathrooms especially for women and differently abled people. Such initiatives ensure well-being of our people thereby fostering an environment for inclusive growth. Achievements of these type draws us closer to our goal of building a platform for a sustainable business. It becomes the need of the hour to think beyond the agenda of "Responsible Stewardship" in order to create completely sustainable business models and systems for the future. Accounting for the global mega-trends and their geographical, physical, technological effects and the changes needed in the legal system (including regulations and tax) – are some of the parameters that needs to be transformed for businesses to adapt to the future needs of a "Sustainable World". To identify the risks these external factors can have on our businesses, we need to enhance our performances and involve our Strategic stakeholders having expertise in these domains. To ensure our preparedness for the future, we need to improve our business models, strategies and risk profiles to "Future Proof" our business endeavours. In order to build resilient business operations, we need to align our value chains with the demands of a "Sustainable World". If only a "Sustainable business" can be contained in a "Sustainable World", then it must be backed by a "Sustainable Value Chain". With an aim to lead in this endeavor, it has become our business imperative to map our value chains to the sustainable model of the future. Our leadership is getting ready to identify external factors that might have an influence on our value chains and business models and the changing needs in terms of our products and brands.

To minimize the impacts of these inevitable changes of the future, we need to build robust and sustainable supply chains for our businesses.

For influencing such a change, it will take time especially with businesses with complex value chains. But to begin our journey on this path, we are making the businesses of today 'future-ready' and thereby contributing in our own way to the larger picture of building a "Sustainable tomorrow".

Hindalco Sustainability Vision

"Hindalco endeavours to become the leading Indian conglomerate for sustainable business practices across our global operations. We believe that this means that as we go forward towards the constrained operating environments of 2030 and 2050 that for a continued "Sustainable World" it can increasingly only contain "Sustainable Businesses".

Hindalco has been publishing Sustainability Report since FY 11 using latest reporting frameworks, such as Global Reporting Initiative (GRI). For FY 2020-21, the Company has migrated towards Integrating Reporting framework, which demonstrates company's value creation approach through financial and non-financial performance. The non-financial disclosures in the report has been prepared as per Value Reporting Foundation's Integrated Reporting Framework and is in accordance with Comprehensive Option of GRI Standards.

The non-financial performance parameters have been assured by Ernst & Young Associates LLP (EY) (External independent assessing agency).

The Integrated Annual Report of the company has been hosted on its website www.hindalco.com. Any shareholder interested in obtaining a physical copy of the same may write to the Company Secretary at the Registered Office of the Company.

Section A: General Information about the Company

1. Corporate Identity Number (CIN) of the Company	L27020MH1958PLC011238	
2. Name of the Company	Hindalco Industries Limited	
3. Registered address	Ahura Centre, 1st Floor, B Wing, Mahakali Caves Road, Andheri (East), Mumbai: 400093	
4. Website	www.hindalco.com	
5. E-mail id	anil.malik@adityabirla.com	
6. Financial Year reported	01st April, 2020 to 31st March, 2021	
7. Sector(s) that the Company is engaged in (industrial activity code-wise)	ITC Code	Product Description
	7601	Aluminium Ingots
	7606	Aluminium Rolled Products 7605
	7605	Aluminium Redraw Rods
	7403	Copper Cathodes
	7408	Copper Wires
	7408	Continuous Cast Copper Rods
	2807	Sulphuric Acid
	7108	Gold
	7106	Silver
8. List three key products/ services that the Company manufactures/provides (as in balance sheet)	• Aluminium Ingots / Rolled Products • Copper Cathodes • Concast Copper Rods	
9. Total number of locations where business activity is undertaken by the Company	48* Global Manufacturing Units (33 in Novelis and 15 in India Operations) *These global manufacturing locations are mapped on page 7, 8 & 9 of this Integrated Annual Report FY 2020-21.	
Registered Office and Zonal Marketing Offices	• Ahura Centre, 1st Floor, B Wing, Mahakali Caves Road, Mumbai: 400 093. • Bauxite and Coal Mines in the state of Jharkhand, Chhattisgarh, Maharashtra and Orissa. • Aluminium Marketing offices are at Mumbai, Delhi, Bangalore, Kolkata and Chennai. • Copper Marketing office are at Mumbai, Bangalore and Noida.	

Markets served by the Company	Local	State	National	International
	✓	✓	✓	✓

Section B: Financial Details of the Company (Standalone)

1.	Paid-up Capital (₹)	222 crore
2.	Total Turnover (₹)	42,701 crore
3.	Total Profits after taxes (₹)	993 crore
4.	Total Spending on Corporate Social Responsibility (CSR) as percentage of profit after tax (%)	The Company has spent ₹ 40.50 Crores on CSR which is 2.98% of the average net profit for the previous three financial years. The legal requirement to spend two percent of average net profit of the Company as per Section 135(5) was ₹ 26.89 Crore and the Company has spent ₹ 13.61 Crore in excess which will be set off within next three financial years.
5.	List of activities in which expenditure in 4 above has been incurred	a. Education b. Healthcare c. Women empowerment d. Sustainable Livelihood e. Infrastructure Development

Section C: Other Details

1. **Does the Company have any Subsidiary Company/ Companies?**

   Yes, as on 31st March, 2021, the Company has 71 subsidiaries - 12 domestic and 59 foreign.

2. **Do the Subsidiary Company/Companies participate in the BR Initiatives of the parent company? If yes, then indicate the number of such subsidiary company(s):**

   Hindalco's Integrated Annual Report covers only the India Operations. Further, Novelis Inc., also publishes Sustainability Report (Purpose Report) separately.

3. **Do any other entity/entities (e.g. suppliers, distributors etc.) that the Company does business participate in the BR initiatives of the Company? If yes, then indicate the percentage of such entity/ entities?**

   At present, suppliers and distributors with whom the Company does business, do not participate in the Business Responsibility initiatives of the Company directly.

Section D: BR Information

1. **Details of Director/Directors responsible for BR**

   a. **Details of the Director responsible for implementation of the BR policy/policies**

DIN Number	01055000
Name	Mr. Y. P. Dandiwala
Designation	Independent Director

   b. **Details of the BR head**

Sr. No.	Particulars	Details
1.	DIN Number	N.A.
2.	Name	Mr. Anil Malik
3.	Designation	President & Company Secretary
4.	Tel. No.	022-66626666
5.	E-mail id	anil.malik@adityabirla.com

2. **National Guidelines for responsible business conduct released by the Ministry of Corporate Affairs has adopted nine areas of Business Responsibility. These briefly are as follows:**

Principle Report	Description of the Principle	Reference	Page Number
Principle 1	Businesses should conduct and govern themselves with Ethics, Transparency and Accountability.	Social and Relationship Capital	143
		Corporate Governance Report	239
Principle 2	Businesses should provide goods and services that are safe and contribute to sustainability throughout their life cycle.	Intellectual Capital	78
		Social and Relationship Capital	127
Principle 3	Businesses should promote the wellbeing of all employees.	Human Capital	46
Principle 4	Businesses should respect the interests of, and be responsive towards all stakeholders, especially those who are disadvantaged, vulnerable and marginalized.	Stakeholder Engagement and Materiality Assessment	25
Principle 5	Businesses should respect and promote human rights.	Human Capital	46
Principle 6	Business should respect, protect, and make efforts to restore the environment.	Natural Capital	85
Principle 7	Businesses, when engaged in influencing public and regulatory policy, should do so in a responsible manner.	Social and Relationship Capital	134
Principle 8	Businesses should support inclusive growth and equitable development	Financial Capital	30
		Natural Capital	108
		Social and Relationship Capital	119
Principle 9	Businesses should engage with and provide value to their customers and consumers in a responsible manner.	Social and Relationship Capital	127

CORPORATE GOVERNANCE REPORT

GOVERNANCE PHILOSOPHY

The Aditya Birla Group is committed to the adoption of best governance practices and its adherence in the true spirit, at all times. Our governance practices are a product of self-desire reflecting the culture of the trusteeship i.e., deeply ingrained in our value system and reflected in our strategic thought process. At a macro level, our governance philosophy rests on five basic tenets viz., Board accountability to the Company and the shareholders, strategic guidance and effective monitoring by the Board, protection of minority interests and rights, equitable treatment of all shareholders as well as superior transparency and timely disclosures.

In line with this philosophy, Hindalco Industries Limited (the Company), flagship Company of the Aditya Birla Group, is striving for excellence through adoption of best governance and disclosure practices. The Company, as a continuous process, strengthens the quality of disclosures, on the Board composition and its functioning, remunerations paid and level of compliance with various Corporate Governance Codes.

Compliance with Corporate Governance Guidelines

The Company is fully compliant with the requirements under Securities and Exchange Board of India (Listing Obligations & Disclosure Requirements) Regulations 2015, and amendment thereto hereinafter referred to the "Listing Regulations". Your Company's compliance with these requirements is presented in the subsequent sections of this report.

BOARD OF DIRECTORS

Composition of the Board

Your Company's Board comprises of 10 Non-Executive Directors as on March 31, 2021 with considerable experience in their respective fields. Of these, 6 Directors are Independent Directors of which one includes woman director.

None of the Directors on the Board is a Member of more than 10 Committees or a Chairman of more than 5 Committees (as specified in Regulation 26 of Listing Regulations), across all the Companies in which they hold Directorships. Further, none of the Non-Executive Directors serve as Independent Directors in more than seven listed companies and none of the Executive or Whole-time Directors serve as Independent Directors on any listed Company. All the Directors have periodically intimated about their Directorship and Membership in the various Boards / Committees of other companies. The same is within permissible limits as provided by the Companies Act, 2013 and Listing Regulations.

The details of the Directors with regard to outside directorships and committee positions as at March 31, 2021 are as follows:

Director#	Category	No. Of other Directorships Held[3]	No. of outside Companies Committee Positions Held[4]		Name of Outside Listed Entity where the person is a Director	Category of Directorship in outside Listed Entities
		Public	Member	Chairman		
Mr. Kumar Mangalam Birla[6, 7] [DIN: 00012813]	Non-Executive Chairman	09	-	-	1. Grasim Industries Limited 2. Aditya Birla Fashion and Retail Limited 3. UltraTech Cement Limited 4. Vodafone Idea Limited 5. Century Textiles and Industries Limited 6. Aditya Birla Capital Limited	Non-Executive Chairman Non-Executive Chairman Non-Executive Chairman Non-Executive Chairman Non-Executive Chairman Non-Executive Chairman
Mrs. Rajashree Birla[6, 7] [DIN: 00022995]	Non-Executive	05	-	-	1. Grasim Industries Limited 2. UltraTech Cement Limited 3. Pilani Investment and Industries Corporation Limited 4. Century Textiles and Industries Limited 5. Century Enka Limited	Non-Executive Director Non-Executive Director Non-Executive Director Non-Executive Director Non-Executive Director
Mr. A. K. Agarwala[2] [DIN: 00023684]	Non-Executive	05	-	-	1. Tanfac Industries Limited	Non-Executive Director
Mr. D. Bhattacharya [DIN: 00033553]	Non-Executive	02	03	-	1. Vodafone Idea Limited 2. NOCIL Limited	Non-Executive Director Independent Director
Mr. K. N. Bhandari [DIN: 00026078]	Independent[1]	08	07	03	1. Jaiprakash Associates Limited 2. Gujarat Sidhee Cement Limited 3. Saurashtra Cement Limited 4. Shristi Infrastructure Developments Corporation Limited	Independent Director Independent Director Independent Director Independent Director

Director#	Category	No. Of other Directorships Held[3]	No. of outside Companies Committee Positions Held[4]		Name of Outside Listed Entity where the person is a Director	Category of Directorship in outside Listed Entities
		Public	Member	Chairman		
Mrs. Alka Bharucha [DIN: 00114067]	Independent[1]	08	09	03	1. UltraTech Cement Limited 2. Orient Electric Limited 3. Honda India Power Products Limited 4. Birlasoft Limited	Independent Director Independent Director Independent Director Independent Director
Mr. Y. P. Dandiwala [DIN: 01055000]	Independent[1]	03	03	01	1. Century Textile and Industries Limited 2. Pilani Investment and Industries Corporation Limited	Independent Director Independent Director
Mr. Satish Pai [DIN: 06646758]	Managing Director	-	-	-	-	-
Mr. Praveen KumarMaheshwari [DIN: 00174361]	Whole-Time Director	01	-	-	-	-
Dr. Vikas Balia [DIN: 00424524]	Independent[1]	01	-	-	-	-
Mr. Sudhir Mital [DIN: 08314675]	Independent[1]	1	-	-	1. Jaiprakash Power Venture Limited	Independent Director
Mr. Anant Maheshwari [5] (DIN No.02963839)	Independent[1]	-	-	-	-	-

1. Independent Director means a director defined as such under Regulation 16 of the Listing Regulations and Section 149 of the Companies Act, 2013.
2. Mr. A. K. Agarwala was an Executive Director till September 10, 2003. Thereafter, he has moved to other responsibilities in the Aditya Birla Group.
3. Excludes Directorship held in Private Limited Companies, Foreign Companies and Companies under Section 8 of the Companies Act, 2013.
4. Represents only membership/chairmanship of Audit Committee and Stakeholders Relationship Committee of Indian Public Limited Companies. Further, membership includes Chairmanship.
5. Mr. Anant Maheshwari was appointed as an Independent Director w.e.f August 14, 2020.
6. No other Director is related to any other Director on the Board except for Mr. Kumar Mangalam Birla and Mrs. Rajashree Birla who are son and mother respectively.
7. Mr. Kumar Mangalam Birla and Smt. Rajashree Birla are declared as promoter and promoter group respectively.
8. Mr. Ram Charan (DIN :03464530) has resigned as Independent Director w.e.f August 14, 2020 due to age and personal reasons.

\# The average tenure of the Board as on 31st March, 2021 is approximately 11 years.

Board's functioning and Procedure

Hindalco's Board of Directors plays a primary role in ensuring good governance and functioning of the Company. All statutory and other significant & material information including information as mentioned in Regulation 17 (7) read together with Schedule II of Listing Regulations is placed before the Board to enable it to discharge its responsibility of strategic supervision of the Company as trustees of the shareholders.

Your Company's Board of Directors have identified the following skills / expertise / competencies to function and discharge their responsibilities effectively: -

- Industry knowledge
- Innovation
- Financial literacy
- Corporate Governance
- Strategic expertise
- Marketing
- Legal and Compliance
- Sustainability
- Risk Management
- Human Development
- General Management
- Metals and Mining

Following are the names of the Directors with such skills / expertise / competencies

	Industry Knowledge	Innovation	Financial Literacy	Corporate Governance	Strategic Experience	Marketing	Legal & Compliance	Sustainability	Risk Management	Human Development	General Management	Metals and Mining
K M Birla	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
Rajashree Birla	✓			✓				✓			✓	
Satish Pai	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
D. Bhattacharya	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
P. K. Maheshwari	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
A. K. Agarwala	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
K. N. Bhandari	✓		✓	✓	✓		✓		✓	✓	✓	✓
Y. P. Dandiwala	✓		✓	✓	✓		✓	✓	✓		✓	
Alka Bharucha	✓		✓	✓	✓		✓	✓	✓		✓	
Vikas Balia	✓	✓	✓	✓	✓		✓		✓		✓	
Sudhir Mital	✓		✓	✓	✓		✓	✓		✓	✓	
Anant Maheshwari	✓	✓	✓	✓	✓	✓		✓		✓	✓	

Board members collectively display the following personal qualities:

- Integrity – fulfilling a director's duties and responsibilities;
- Curiosity and courage – to ask questions and courage to persist in asking or challenging management and fellow board members where necessary;
- Interpersonal skills – work well in a group, listen well, be tactful, able to communicate point of view frankly;
- Interest – in the organization, its business and the people;
- Instinct – good business instincts and acumen, ability to get to the crux of the issue quickly;
- Believer in gender diversity and
- Active participation – at deliberations in the meeting.

Your Company's Board comprises of an equal number of Independent and Non-Independent Directors. The Directors are professionals, possessing wide experience and expertise in their areas of function - strategy; finance; governance and legal; marketing, insurance, among others, which together with their collective wisdom fuel your Company's growth. With one-sixth of the Board comprising of woman directors, the Board reflects gender diversity.

A brief profile of the Directors of your Company is as follows:

Kumar Mangalam Birla was appointed as a Non-Executive Chairman of our Company with effect from October 19, 1995. He is the Chairman of the Board of Directors of your Company and the Chairman of Aditya Birla Group (the "Aditya Birla Group"), which operates in 36 countries across six continents. He is a chartered accountant and holds an MBA degree from the London Business School.Mr. Birla chairs the Boards of all major Group companies in India and globally. In the 25 years that he has been at the helm of the Group, he has accelerated growth, built meritocracy, and enhanced stakeholder value. In the process he has raised the Group's turnover by over 20 times. He has been the architect of over 40 acquisitions in India and globally, among the highest by any Indian multinational. Under his stewardship, the Aditya Birla Group enjoys a position of leadership in all the major sectors in which it operates, from cement to chemicals, metals to textiles, and apparels to financial services. Over the years, Mr. Birla has built a highly successful meritocratic organisation, anchored by an extraordinary force of 120,000 employees belonging to 42 different nationalities.Outside the Group, Mr. Birla has held several key positions on various regulatory and professional Boards. He was a Director on the Central Board of Directors of the Reserve Bank of India. He was Chairman of the Advisory Committee constituted by the Ministry of Company Affairs and also served on the Prime Minister of India's Advisory Council on Trade and Industry. As the Chairman of Securities and Exchange Board of India (SEBI) Committee on Corporate Governance, he framed the first-ever governance code for Corporate India. He is also the first Indian Industrialist to be conferred an Honorary degree by the Institute of Company Secretaries of India (ICSI). Mr. Birla is deeply engaged with Educational Institutions. He is the Chancellor of the Birla Institute of Technology & Science (BITS) with campuses in Pilani, Goa, Hyderabad and Dubai. He is also the Chairman of India's premier management institute — Indian Institute of Management, Ahmedabad. On the global arena, Mr. Birla serves on the London Business School's Asia Pacific Advisory Board and is an Honorary Fellow of the London Business School. In 2019, Mr. Birla constituted a £15mn scholarship programme at the London Business School in memory of his grandfather, Mr. B.K. Birla, marking the largest ever endowed scholarship gift to a European Business School.A firm practitioner of the trusteeship concept, Mr. Birla has institutionalised the concept of caring and giving at the Aditya Birla Group. With his mandate, the Group is involved in meaningful welfare driven activities that distinctively impact the quality of life of weaker sections of society.

Rajashree Birla is a Non-Executive Director and was appointed on the Board of Directors on March 15, 1996. Mrs. Rajashree Birla is an exemplar in the area of community initiatives and rural development. Mrs. Birla spearheads the Aditya Birla Centre for Community Initiatives and Rural Development, the Aditya Birla Group's (Group) apex body responsible for development projects. She oversees the social and welfare driven work across all the Group's major companies. The footprint of the Centre's work straddles over 7,000 villages, reaching out to 9 million people. The Group runs 20 hospitals and 56 schools where quality education is imparted to over 46,500 children. Both its hospitals as well as schools are 'Not For Profit' institutions. Mrs. Birla is the Chairperson of the FICCI – Aditya Birla CSR Centre for Excellence, Habitat for Humanity (India) and is on the Board of the Asia Pacific Committee as well as Habitat's Global Committee. She is the Chairperson of FICCI's first ever Expert Committee on CSR. She is on the Board of BAIF Development Research Foundation, Pune and also serves on the Board of directors of the CSR Committee of the State Bank of India. As a patron of arts and culture, she heads the "Sangit Kala Kendra", a Centre for performing arts, as its President.In recognition of the exemplary work done by Mrs. Rajashree Birla, leading national and international organizations have showered accolades upon her. Among these the most outstanding one has been that of the Government of India which bestowed the "Padma Bhushan" Award in 2011 on Mrs. Rajashree Birla in the area of "Social Work". In recognition of Mrs. Birla's unrelenting endeavours towards polio eradication, she was honoured with the much coveted "Polio Eradication Champion" Award by the Government of India. Likewise, the 'Global Golden Peacock Award for CSR' was conferred upon her by Dr. Ola Ullsten, the Former Prime Minister of Sweden in Portugal. Among other distinctive awards received by Mrs. Birla, feature the Economic Times' prestigious Award: Corporate Citizen of the Year, twice in a decade, first in 2003 and again in 2012; the All India Management Association's 'Corporate Citizen of the Year Award', the IOD's 'Distinguished Fellowship Award' and the 'FICCI FLO Golden Laurel Award'.

Debnarayan Bhattacharya is a Non-Executive Director and the Vice Chairman of our Company with effect from July 31, 2016. He has experience in managing business operations. He joined the Aditya Birla Group in 1998 and has held several key positions within the Aditya Birla Group. He was appointed as Managing Director of the Company in the year 2003. He is qualified in Bachelor of Engineering (Chemicals) and IIT from Kharagpur.

Askaran Agarwala is a Non-Executive Director of our Company and was appointed on the Board in 1998. He is a Trustee of several organisations including Sarla Basant Birla Param Bhakti Trust, Aditya Vikram Birla Memorial Trust, The Aditya Birla Foundation, Ladsaria Charitable & welfare Trust and Hellen Keller Institute of the Deaf and Blind. He holds a degree in Commerce and Law of Calcutta University and is fellow member of the Institute of Chartered Accountants of India.

Mr. Sudhir Mital is a Non-Executive Director and Independent Director of our Company with effect from November 11, 2019 for a period of five years. He is a graduate from Allahabad University with a Master's degree in Indian History. He also holds additional Masters in Rural Development from the University of Birmingham. He has been a former member of the Indian Administrative Service from the Punjab Cadre, Secretary to Department of Fertilizers – Government of India, and Special Secretary to MCA. He was also a former acting Chairman of Competition Commission of India (CCI). Has rich professional experience in the fields of public policy and governance after nearly four decades of service. He has been a key functionary with regards to the Companies Bill, 2013

Kailash Nath Bhandari is a Non-Executive and Independent Director on the Board of our Company. Prior to joining our Company, he has also served as the Chairman and Managing Director of the New India Assurance Company Limited. He holds a Bachelor's degree in Arts and Law.

Dr. Vikas Balia is a Non-Executive Director and Independent Director of our Company with effect from July 19, 2019 for a period of five years, founder of Legalsphere Law firm, rank holding Chartered Accountant and a lawyer and has a Master's degree in Mercantile Laws with doctoral research (Ph. D) on Securitization Laws. He has varied and extensive experience on commercial and constitutional law. He is an adjunct faculty in many institutions and lectures for CA, Law and MBA students.

Yazdi Dandiwala is a Non-Executive Director and Independent Director of our Company with effect from August 14, 2015 for a period of five years. He is further reappointed for a period of five years w.e.f August 14, 2020. He is qualified as a Bachelor in Science and holds a degree in Law. He is Solicitor by profession. He is currently a partner of Mulla & Mulla and Craigie Blunt & Caroe, Advocates & Solicitors. He has experience as a corporate Commercial Lawyer with experience in corporate and commercial transactions.

Alka Bharucha is a Non- Executive Director and Independent Director of our Company with effect from July 11, 2018 for a period of five years. She earned her B.A (Hons) in 1976 and LLB in 1979 from University of Bombay, Masters in Law from the University of Bombay and University of London and Solicitor High Court Mumbai and Supreme Court of England and Wales. She began her career with Mulla & Mulla & Craigie Blunt & Caroe, and joined Amarchand & Mangaldas as partner in 1992. In 2008, she co-founded Bharucha & Partners which, on inception, was ranked by RSG Consulting, London among the top fifteen firms in India. Mrs. Bharucha has been ranked by Chambers Global, Legal 500 and Who's Who Legal amongst India's leading lawyers. She chairs the transactions practice at Bharucha & Partners. Her core areas of expertise are mergers and acquisitions, joint ventures, private equity, banking and finance.

Anant Maheshwari is presently President, Microsoft India. Prior to this he has worked with Honeywell Inc and McKinsey & Co. He currently chairs CII IT & ITeS committee and is a member of NASSCOM Exec Council. His career spans across the fields of Technology, Industrial & Automation, Enterprise & B2B markets, Strategy & Business Development.

Satish Pai was appointed as Whole-Time Director on our Board since August, 2013 and appointed as the Managing Director of our Company with effect from August 01, 2016 for a period of five years. He is further reappointed by the Board of Directors at their meeting held on May 21, 2021 for a period of three years w.e.f August 1, 2021 subject to approval of shareholders in ensuing Annual General Meeting. He holds a Bachelor's degree in Mechanical Engineering from the Indian Institute of Technology, Madras. He has experience in areas such as operations, recruitment, and training.

Praveen Kumar Maheshwari is a Whole Time Director and Chief Financial Officer of the Company. He joined the Company as its Chief Financial Officer in December 2011. He was inducted in the Board as the Whole Time Director in May 2016. He also worked as the CEO of Copper business of the Company for the period from 1st July 2019 to 30th April 2021. Mr. Maheshwari, a Chartered Accountant with an MBA from IIM - Ahmedabad, has over 38 years of work experience in areas of General Management and Finance, including mergers & acquisitions, fundraising, investor relations in India and global financial markets. Prior to joining Hindalco, he has worked with a number of business houses engaged in different industries. His last assignment before joining the Company was as Group CFO & Executive Director – Finance of Bharat Forge Limited.

Board Meetings

The Company Secretary drafts the agenda for each meeting along with the explanatory notes. The Board meets at once a quarter to review the quarterly results and other items on the agenda. Various Board Committees meet as per the legal requirement or otherwise to transact the business delegated by Board of Directors.

Since the Companies Act 2013, read with the relevant rules made thereunder, facilitates the participation of Director in Board/Committee Meetings through video conferencing or other audio visual mode, the option to participate in the meeting through video conferencing was made available for the Directors except in respect of such meetings/Items which are not permitted to be transacted through video conferencing.

The Members of the Board have complete freedom to express their opinion and decisions are taken after detailed discussion. The details of Board Meetings held during FY 2020-2021 are as outlined below:

Date of Board Meeting	City	No. of Directors Present
June 12, 2020	Mumbai	12 out of 12
August 14, 2020	Mumbai	11 out of 12
November 10, 2020	Mumbai	12 out of 12
December 07, 2020	Mumbai	12 out of 12
February 10, 2021	Mumbai	12 out of 12
February 22, 2021	Mumbai	12 out of 12

The details of attendance of each Director at the Board Meetings and Last Annual General Meeting (AGM) are as follows:

Name of Director	No. of Board Meetings		Attended Last AGM@
	Held	Attended	
Mr. Kumar Mangalam Birla	6	6	Yes
Mrs. Rajashree Birla	6	6	Yes
Mr. A. K. Agarwala	6	6	Yes
Mr. D. Bhattacharya	6	6	Yes
Mr. K. N. Bhandari	6	6	Yes
Mrs. Alka Bharucha	6	6	Yes
Mr. Ram Charan**	2	1	N.A
Mr. Y. P. Dandiwala	6	6	Yes
Mr. Satish Pai	6	6	Yes
Mr. Praveen Kumar Maheshwari	6	6	Yes
Dr. Vikas Balia	6	6	Yes
Mr. Sudhir Mital	6	6	Yes
Mr. Anant Maheshwari*	4	4	Yes

@AGM held on 10th September, 2020.

* Mr. Anant Maheshwari was appointed on the Board of the Company at its meeting held on 14th August, 2020.

** Mr. Ram Charan tendered his resignation as Independent Director w.e.f August 14, 2020.

PERFORMANCE EVALUATION OF BOARD

Pursuant to the provisions of Companies Act, 2013 and Listing Regulations, the Directors have carried annual performance evaluation of Board, Independent Directors, Non-Executive Directors, Executive Directors, Committee and Chairman of the Board.

The evaluation framework focused on various aspects of Board and Committees such as review, timely information from management etc. Also, performance of individual directors was divided into Executive, Non-Executive and Independent Director and based on the parameters such as contribution, attendance, decision making, action oriented, external knowledge etc.

The evaluation exercise has been carried out by the Board on the basis of Evaluation template for Board, Independent Director, Non-Executive Director, Executive Directors, Committees and Chairman of the Board. The template had various questions to be replied by the directors on aforesaid parameters. The Nomination and Remuneration Committee evaluated the performance on the basis of response received from the Directors. Similarly, the Independent Directors evaluated the performance of Non Independent Directors, Chairman and assessed the quality, quantity and flow of information between the Company, Management and the Board.

Outcome of the evaluation exercise:

1. The Board as a whole perform satisfactorily.
2. Independent Directors are rated high in understanding the Company's business and expressing their view during the Board Meeting.
3. The Non-Executive Director scored well in all aspects.
4. Directors rated Executive Directors as action oriented and good in implementing Board decisions.
5. Board members rated high to the Chairman leading the board effectively.
6. Board members has shown satisfaction in functioning of the Committees.

INDEPENDENT DIRECTOR'S MEETING

During the year under review, the Independent Directors met without the presence of Non Independent Directors and members of the management inter alia to discuss:

- Evaluate the performance of Non Independent Directors and the Board of Directors as a whole.
- Evaluate the performance of the Chairman, taking into account the views of Executive and Non-Executive Directors.
- Evaluate the quality, content and timelines of flow of information between the Management and the Board that is necessary for the Board to effectively and reasonably perform its duties

The Independent Directors expressed satisfaction on the overall performance of the Directors and the Board as a whole.

In the opinion of the Board, the Independent Directors fulfil all the conditions specified in the Listing Regulations as amended and are independent of the management.

FAMILIARISATION PROGRAMME FOR INDEPENDENT DIRECTORS

All new Independent Directors inducted on the Board are given a letter of appointment setting out their roles, functions, duties and responsibilities.

The Directors are familiarized with your Company's Business and its operations. Interactions are held between the Directors and Senior Management of your Company. Directors are familiarized with organizational set-up, functioning of various department, internal control processes and relevant information pertaining to your Company. They are periodically updated on industry scenario, changes in regulatory framework and the impact thereof on the working of your Company.

The details on the Company's Familiarization Programme for Independent Directors can be accessed at: http://hindalco.com/about-us/management-team/board-of-directors.

COMMITTEES OF THE BOARD OF DIRECTORS

The Board has constituted following Committees of Directors to deal with matters and monitor the activities falling within the respective terms of reference:-

AUDIT COMMITTEE

Constitution of Audit Committee and its functions

Your Company has an Audit Committee at the Board level which acts as a link between the Management, the Statutory and the Internal Auditors and the Board of Directors and oversees the financial reporting process. The Committee is governed by a Charter which is line with the regulatory requirements mandated by the Companies Act, 2013 and Listing Regulations.

The Committee comprises of three Non-Executive Directors, all of whom are Independent Directors. The followings are the members of Audit Committee:

Mr. K.N. Bhandari	–	Chairman
Mr. Y.P. Dandiwala	–	Member
Dr. Vikas Balia	–	Member

Mr. Anil Malik, Company Secretary also acts as Secretary to the Committee

During the year, the Audit Committee met 5 times i.e on June 12, 2020, August 14, 2020, October 09, 2020 , November 10, 2020 and February 10, 2021 to deliberate on various matters. The attendance of each Audit Committee members are as follows:

Name of the Director	No. of Meetings held	No. of Meetings Attended
Mr. K. N. Bhandari	5	5
Mr. Y. P. Dandiwala	5	5
Dr. Vikas Balia	5	5

1. The Chairman of the Audit Committee, Mr. K. N. Bhandari was present at the last Annual General Meeting of your Company held on September 10, 2020.
2. The Managing Director, Whole-Time Director and CFO, the representative of the Statutory Auditor, Head of the Internal Audit are permanent invitees of the Audit Committee. The representative of the Cost Auditors are invited to the Audit Committee Meetings whenever matters relating to cost audit is considered.
3. Mr. Anil Malik, Company Secretary, acted as Secretary to the Committee.

Role of Audit Committee:

(1) Oversight of the listed entity's financial reporting process and the disclosure of its financial information to ensure that the financial statement is correct, sufficient and credible;

(2) Recommendation for appointment, remuneration and terms of appointment of auditors of the listed entity;

(3) Approval of payment to statutory auditors for any other services rendered by the statutory auditors;

(4) Reviewing, with the management, the annual financial statements and auditor's report thereon before submission to the board for approval, with particular reference to:

(a) Matters required to be included in the Director's Responsibility Statement to be included in the Board's Report in terms of clause (c) of sub section (3) of Section 134 of the Companies Act, 2013;

(b) Changes, if any, in accounting policies and practices and reasons for the same;

(c) Major accounting entries involving estimates based on the exercise of judgment by management;

(d) Significant adjustments made in the financial statements arising out of audit findings;

(e) Compliance with listing and other legal requirements relating to financial statements;

(f) Disclosure of any related party transactions;

(g) Modified opinion(s) in the draft audit report;

(5) Reviewing, with the management, the quarterly financial statements before submission to the board for approval;

(6) Reviewing, with the management, the statement of uses/ application of funds raised through an issue (public issue, rights issue, preferential issue, etc.), the statement of funds utilized for purposes other than those stated in the offer document / prospectus / notice and the report submitted by the monitoring agency monitoring the utilisation of proceeds of a public or rights issue, and making appropriate recommendations to the board to take up steps in this matter;

(7) Reviewing and monitoring the auditor's independence and performance, and effectiveness of audit process;

(8) Approval or any subsequent modification of transactions of the listed entity with related parties;

(9) Scrutiny of inter-corporate loans and investments;

(10) Valuation of undertakings or assets of the listed entity, wherever it is necessary;

(11) Evaluation of internal financial controls and risk management systems;

(12) Reviewing, with the management, performance of statutory and internal auditors, adequacy of the internal control systems;

(13) Reviewing the adequacy of internal audit function, if any, including the structure of the internal audit department, staffing and seniority of the official heading the department, reporting structure coverage and frequency of internal audit;

(14) Discussion with internal auditors of any significant findings and follow up there on;

(15) Reviewing the findings of any internal investigations by the internal auditors into matters where there is suspected fraud or irregularity or a failure of internal control systems of a material nature and reporting the matter to the board;

(16) Discussion with Statutory Auditors before the audit commences, about the nature and scope of audit as well as post-audit discussion to ascertain any area of concern;

(17) To look into the reasons for substantial defaults in the payment to the depositors, debenture holders, shareholders (in case of non-payment of declared dividends) and creditors;

(18) To review the functioning of the whistle blower mechanism;

(19) Approval of appointment of Chief Financial Officer after assessing the qualifications, experience and background, etc. of the candidate;

(20) Carrying out any other function as is mentioned in the terms of reference of the Audit Committee.

(21) Reviewing the utilisation of the loans and / or advances from / investments by the Holding Company in the subsidiary exceeding ₹ 100 crore or 10% of the asset size of the subsidiary, whichever is lower including existing loans / advances/ investments existing as on April 01, 2019.

B. The audit committee reviews the following information:

(1) Management Discussion and Analysis of financial condition and results of operations;

(2) Statement of significant related party transactions (as defined by the audit committee), submitted by management;

(3) Management letters / letters of internal control weaknesses issued by the Statutory Auditors;

(4) Internal audit reports relating to internal control weaknesses; and

(5) The appointment, removal and terms of remuneration of the Chief Internal Auditor;

(6) Statement of deviations:

(a) Quarterly statement of deviation(s) including report of monitoring agency, if applicable, submitted to Stock Exchange(s) in terms of Regulation 32(1) of the Listing Regulations.

(b) Annual statement of funds utilized for purposes other than those stated in the offer document/prospectus/ notice in terms of Regulation 32(7) of the Listing Regulations.

STAKEHOLDER'S RELATIONSHIP COMMITTEE

The Company has a "Stakeholder's Relationship Committee" at the Board level to specifically look into various aspects of interests of shareholders, debenture holders and other security holders.

The role of the committee is to specifically look into various aspects of interest of shareholders, debenture holders and other security holders including:

1. Resolving the grievances of the security holder of the Company including complaints related to transfer/ transmission of shares, non-receipt of Annual Reports non-receipts of declared dividends issue of new/ duplicate Certificate, General Meetings etc.

2. Review of measures taken for effective exercise of voting rights by shareholders.

3. Review of various measures and initiatives taken by the listed entity for reducing the quantum of unclaimed dividends and ensuring timely receipt of dividend warrants/ annual reports/ statutory notices by the shareholders of the Company.

   The following are the members of the Committee:

   Mr. K. N. Bhandari – Chairman
   Mr. A. K. Agarwala – Member
   Mr. Satish Pai – Member

   Mr. Anil Malik, Company Secretary, is the Compliance officer and acts as secretary to the Committee.

   During the year under review, the Committee met four times i.e on June 10, 2020, August 13, 2020, November 05, 2020 and February 4, 2021 to deliberate on various matters referred above. Details of attendance by Directors for the Committee meetings are as follows:

Name of the Director	No. of Meetings	No. of Meetings Attended
Mr. K. N. Bhandari	4	4
Mr. A. K. Agarwala	4	4
Mr. Satish Pai	4	4

The Company's shares are compulsorily traded and delivered in the dematerialised form in all Stock Exchanges. To expedite the transfer in the physical segment, necessary authority has been delegated to certain officers, who are authorised to transfer up to 10,000 shares under one transfer deed.

Number of shareholders complaints received so far/ number not solved to the satisfaction of shareholders/ number of pending complaints

Details of complaints received, disposed off and pending during the year, number of shares transferred during the year, time taken for affecting these transfers and the number of share transfers pending are furnished in the "Shareholder Information" section of this Annual Report.

NOMINATION AND REMUNERATION COMMITTEE

The Board has formed a Nomination and Remuneration Committee consisting of the following members:

Mr. K. N. Bhandari – Chairman
Mr. Kumar Mangalam Birla – Member
Mr. Y. P. Dandiwala – Member

Mr. Anil Malik, Company Secretary also acts as Secretary to the Committee

As per Section 178 of Companies Act, 2013 and Regulation 19 of Listing Regulations, the terms of reference are as follows:

- Identify persons who are qualified to become Directors and who may be appointed in Senior Management and recommend to the Board their appointment and removal.
- Formulation of criteria for evaluation of performance of Independent Directors and the Board.
- Carry out evaluation of every Director's performance.
- Formulate the criteria for determining qualifications, positive attributes and independence of a Director.
- Recommend to the Board a policy, relating to the remuneration for the Directors, Key Managerial Personnel and other employees.
- Devise a policy on Board diversity.
- Whether to extend or continue the term of appointment of Independent Director on the basis of report of performance evaluation of Independent Director.
- Recommend to the board, all remuneration, in whatever form, payable to senior management.

The scope and functions of the Committee is in accordance with the provisions of the Companies Act, 2013 and Listing Regulations.

During the year under review, the Committee met four times i.e on June 12, 2020, August 14, 2020, November 10, 2020 and February 10, 2021 to deliberate on various matters referred above. The details of attendance of the members is as below:

Name of the Director	No. of Meetings	No. of Meetings Attended
Mr. K. N. Bhandari	4	4
Mr. K. M. Birla	4	4
Mr. Y. P. Dandiwala	4	4

CORPORATE SOCIAL RESPONSIBILITY COMMITTEE (CSR)

The Corporate Social Responsibility Committee comprises of the following members:

Mrs. Rajashree Birla – Chairman
Mr. Satish Pai – Member
Mr. A.K. Agarwala – Member
Mr.D. Bhattacharya – Member
Mr. Y. P. Dandiwala – Member

Dr. Mrs. Pragnya Ram: Group Executive President: Corporate Communications and CSR is a permanent invitee to the Committee.

Mr. Anil Malik, Company Secretary also acts as Secretary to the Committee.

The terms of reference of Corporate Social Responsibility Committee broadly comprises of following:

(a) Formulate and Recommend CSR Policy to the Board indicating the activities to be undertaken by the Company as specified in Schedule VII of Companies Act, 2013 and monitor the policy from time to time.

(b) Recommend the amount of expenditure to be incurred on the activities referred to in clause(a).

(c) Formulate and recommend to the Board, an annual action plan pursuant to the CSR Policy.

During the year under review, the Committee met once i.e. on June 10, 2020 to deliberate on various matters referred above. The details of attendance of the members is as below:

Name of the Director	No. of Meetings	No. of Meetings Attended
Smt. Rajashree Birla	1	1
Mr. Satish Pai	1	1
Mr. D. Bhattacharya	1	1
Mr. A K Agarwala	1	1
Mr. Y. P. Dandiwala	1	1

RISK MANAGEMENT COMMITTEE

The Company has a robust risk management framework to identify, monitor and minimize risk as also identify business responsibilities.

Your Company has comprehensive Risk Management Policy. The following are the Members of Risk Management Committee:

- Mr. A.K. Agarwala – Chairman
- Mr. Satish Pai – Member
- Mr. D. Bhattacharya – Member
- Mr. Praveen Kumar Maheshwari – Member
- Mr. Anil Arya * – Member
- Mr. Vikram Sondhi – Member
- Mr. Anil Mathew – Member

Mr. Anil Malik, Company Secretary is Compliance Officer of the Risk Management and also acts as Secretary to the Committee.

*Mr. Anil Arya was inducted in the Risk Management Committee at the Board Meeting held on June 12, 2020.

During the year under review, the Committee met four times i.e on April 09, 2020, July 07, 2020, October 08, 2020 and January 08, 2021 to deliberate on various matters. Details of attendance by Directors for the Committee meetings are as follows:

Name of the Director / Member	No. of Meetings	No. of Meetings Attended
Mr. A. K. Agarwala	4	4
Mr. Satish Pai	4	4
Mr. D. Bhattacharya	4	4
Mr. Praveen Kumar Maheshwari	4	4
Mr. Anil Arya	3	1
Mr. Anil Mathew	4	4
Mr. Vikram Sondhi	4	4

Non-Executive Director's Compensation and Disclosure

All fees/compensation including sitting fee paid to the Non-Executive Directors of the Company are fixed by Board of Directors within the limits approved by the shareholders. Details of sitting fees/compensation paid including stock options, if any, to them are given at the respective places in the report.

Remuneration of Directors and Others

Your Company has two Executive Directors, the Board of Directors decides the remuneration of the Managing Director and Whole-Time Director on the recommendation of Nomination and Remuneration Committee.

The Company has a system where all the Directors or Senior Management of the Company are required to disclose all pecuniary relationship or transactions with the Company.

There were no pecuniary relationships or transactions between your Company and Non-Executive Director during the year.

Besides sitting fees ₹ 50,000/- per meeting of the Board, ₹ 25,000/- per meeting of the Audit Committee and ₹ 20,000/- per meeting for any other Committee thereof, the Company also pays Commission to the Non-Executive Directors.

For FY 2020-21, the Board has approved payment of ₹ 6.00 crore (previous year ₹ 2.20 crores) as Commission to the Non-Executive Directors of the Company pursuant to the authority given by the shareholders at the Annual General Meeting held on September 24, 2014 to pay Commission not exceeding 1% of the net profits of the Company to the Non-Executive Directors of the Company. The amount of commission payable is determined after assigning weightage to attendance and the type of meeting and other responsibilities.

Executive Directors are paid remuneration within the limits envisaged under Section 197, Schedule V of Companies Act, 2013. The said remuneration is approved by the Board as well as shareholders of the Company.

The details of Remuneration package, fees paid etc. to Directors for the year ended March 31, 2021:

(a) Non-Executive Directors:

Name of Director	Sitting Fees Paid (₹ In Lakhs)	Commission payable (₹ in Lakhs)	Total Payments Paid / Payable in 2020-21 (₹ in Lakhs)
Mr. Kumar Mangalam Birla[1, 2]	3.80	-	3.80
Mrs. Rajashree Birla[2]	3.20	298.15	301.35
Mr. A. K. Agarwala	5.40	33.94	39.34
Mr. D. Bhattacharya[6]	4.60	30.56	35.16
Mr. Anant Maheshwari[7]	2.00	18.66	20.66
Mr. K. N. Bhandari	5.85	53.94	59.79
Mr. Ram Charan[8]	0.50	4.58	5.08
Mrs. Alka Bharucha	3.00	34.82	37.82
Mr. Y. P. Dandiwala	5.65	50.25	55.90
Dr. Vikas Balia	4.25	47.28	51.53
Mr. Sudhir Mital	3.00	27.82	30.82

Notes:

1. Mr. Kumar Mangalam Birla assumed the role of Executive Chairman of Aditya Birla Management Corporation Private Limited w.e.f. January 01, 2019. Accordingly he would not like to receive any commission from your Company w.e.f. January 01, 2019.
2. No Director is related to any other Director on the Board, except Mr. Kumar Mangalam Birla and Mrs. Rajashree Birla, who are son and mother respectively.
3. Your Company has a policy of not advancing any loan to its Directors except to Executive Director in the course of normal employment.
4. The Company has obtained shareholders' approval for payment of commission to its Non-Executive Directors & Independent Directors, not exceeding 1% of Net Profit of the Company.
5. Stock Options were not granted to any Non-Executive Directors.
6. In addition to above, the Board approved pension of Mr. D. Bhattacharya of ₹ 0.335 crore per month and other post-employment benefits for his past service when he was the Managing Director of the Company. The present value of the above pension liability determined based on the actuarial valuation is accounted by the Company in its financial statements. Amount charged as expenses in the statement of profit and loss during the year towards such post-employment benefit amounting to ₹ 3 crore has been disclosed as a part of managerial remuneration above, and does not include the impact of actuarial losses recognised in other comprehensive income amounting to ₹ 1 crore.
7. Mr. Anant Maheshwari (DIN: 02963839) has been appointed as an Independent Director w.e.f August 14, 2020.
8. Mr. Ram Charan (DIN :03464530) has resigned as Independent Director w.ef August 14, 2020 due to age and personal reasons.

(b) Paid to Executive Directors

Executive Director	Remuneration for the year 2020-21				
	Relationship with other Directors	All elements of remuneration package i.e., salary, benefits, bonuses, pension etc.	Fixed component & performance linked incentives, along with performance criteria	Service contracts, notice period, severance fee	Stock option details, if any
Mr. Satish Pai (Managing Director) See Note (a), (e)	None	₹ 17,14,43,076	₹ 7,48,73,000	See Note (b)	See Note (c)
Mr. Praveen Kumar Maheshwari (Whole-Time Director) See Note (e)	None	₹ 3,78,75,427	—	See Note (b)	See note (d)

(a) Mr. Satish Pai Managing Director was paid a sum of ₹ 7,48,73,000 towards performance bonus linked to achievement of targets for FY 2019-2020.

(b) The appointment is subject to termination by three months notice in writing on either side. No severance fee is payable to the Managing Director or Whole-Time Director.

(c) 782,609 Stock Options were granted on October 09, 2013 to Mr. Satish Pai. These Stock Options are vested 25% each year over a period of 4 years from the date of grant. In addition, he has been granted 956,522 Stock Appreciation Rights (SARs), of which Mr. Pai had exercised 478,261 SARs during the year FY 2018-19 and balance 478,261 SARs were exercised during FY 2019-20.Further, 1,985,292 and 264,704 Stock Options along with 466,805 and 62,241 Restricted Stock Units (RSUs) have been granted during FY 2018-19 and FY 2019-20 respectively. These Stock Options are vested 25% each year over a period of 4 years from the date of grant and RSUs are vested at the end of 3 years from date of grant. During FY 2019-20, Mr. Satish Pai has exercised 325,653 Stock Options.During FY 2020-21, Mr. Satish Pai has exercised 65,652 Stock Options.

(d) 55,630 Stock Options were granted on October 09, 2013 to Mr. Praveen Kumar Maheshwari. These Stock Options are vested 25% each year over a period of 4 years from the date of grant. Mr. Praveen Kumar Maheshwari was also granted 55,667 RSU on October 09, 2013 which are vested after expiry of 3 years from the date of grant. Further, 119,116 Stock Options and 28,008 RSUs has been granted during FY 2018-19. These Stock Options are vested 25% each year over a period of 4 years from the date of grant and RSUs are vested at the end of 3 years from date of grant. During FY 2019-20, Mr. Praveen Kumar Maheshwari has exercised 111,297 Stock Options .During the year FY 2020-21, no stock options were exercised by Mr. Praveen Kumar Maheshwari however he has been granted 29,779 stock options.

(e) Remuneration excludes amortisation of fair value of employee share based payments under Ind AS 102 and liabilities for defined benefit plans provided on actuarial basis.

All Directors have disclosed their shareholding in the Company. None of the Directors are holding any debentures or any other convertibles of the Company. Details of shareholding of Directors as on March 31, 2021 are as follows:

Name of the Directors	Shares (₹ 1 paid up)
Mr. Kumar Mangalam Birla*	901,635
Mrs. Rajashree Birla	612,470
Mr. A. K. Agarwala	116,148
Mr. D. Bhattacharya	1,571,937
Mr. K. N. Bhandari	5,071
Mr. Y. P. Dandiwala	206
Mrs. Alka Bharucha	NIL
Mr. Satish Pai	421,305
Mr. Praveen Kumar Maheshwari	36,297
Dr. Vikas Balia	325
Mr. Sudhir Mital	NIL
Mr. Anant Maheshwari	NIL

*Additionally he holds 648,632 equity shares as Karta of Aditya Vikram Kumar Mangalam Birla HUF.

Code of Conduct

The Hindalco Code of Conduct, as adopted by the Board of Directors, is applicable to all Directors, Senior Management of the Company. The Code is available on the Company's website viz: http://www.hindalco.com/upload/pdf/hindalco-code-of-conduct-BODs-SMP.pdf

For the year under review, all Directors and Senior Management personnel of the Company have confirmed their adherence to the provisions of the said Code.

Declaration as required under Regulation 26(3) of the Listing Regulations.

We hereby confirm that all Directors and Senior Management have affirmed compliance with Code of Conduct for the financial year ended March 31, 2021.

Satish Pai
Place : Mumbai — Managing Director
Date: July 2, 2021 — DIN: [06646758]

CODE OF CONDUCT FOR PREVENTION OF INSIDER TRADING

In terms of the provisions of the Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 2015, as amended, your Company has adopted a 'Code of Conduct to regulate, monitor and report trading by designated persons in listed or proposed to be listed securities' of your Company ("the Code"). The Code aims at preserving and preventing misuse of unpublished price sensitive information. All Designated Persons (including Directors, Key Managerial Personnel and Employees) of your Company are covered under the Code, which provides inter alia for periodical disclosures and obtaining pre-clearances for trading in securities of your Company.

SUBSIDIARY COMPANIES

The Company has adopted a policy for determining 'material' subsidiaries and the policy can be accessed on your Company's website viz: http://www.hindalco.com/upload/pdf/hil-policy-on-material-subsidiary.pdf

The Company is in compliance with the requirements of Regulation 24 of Listing Regulations with respective Corporate Governance for its subsidiary companies.

DISCLOSURES

(A) Related Party Transactions

All the related party transactions are strictly done on arm's length basis. The Company places all the relevant details of a related party transaction, entered in the normal course of business, before the Audit Committee from time to time. There was no material related party transaction, which are not in the normal course of the business, entered into by the Company during the year. Attention of the Members is drawn to the disclosures of transactions with the related parties set out in Notes to Accounts forming part of the Financial Statements. The Board of Directors have approved and adopted a policy on Related Party Transactions and the same has been uploaded on the website of the Company at http://www.hindalco.com/investor-centre/policies.

(B) Non Compliances/Strictures/penalties Imposed

No Non Compliance/strictures/penalties have been imposed on the Company by Stock Exchange(s) or SEBI or any Statutory Authority on any matters related to capital markets during the last three years.

(C) Disclosure of Accounting Treatment

Your Company has followed all relevant Accounting Standards while preparing the Financial Statements.

(D) Risk Management

Risk evaluation and management is an ongoing process within the organisation. Your Company has comprehensive Risk Management Policy and it is periodically reviewed by the Board of Directors.

(E) Proceeds from public issues, right issues, preferential issues etc:

During the year under review, the Company has not raised any proceeds from public issues, right issues or preferential issues.

(F) Remuneration of Directors

This is included separately in this Section.

(G) Management

Management Discussion and Analysis Report is prepared in accordance with the requirements laid out under Listing Regulations forms part of Integrated Annual Report. No material transaction has been entered into by the Company with the Promoters, Directors or the Management, their subsidiaries or relatives, etc., that may have a potential conflict with interests of the Company.

(H) Shareholders

(i) The Company has provided the details of Directors seeking appointment/re-appointment in the Annual General Meeting Notice attached with this Annual Report.

(ii) Quarterly Presentations on the Company results are available on the website of the Company (www.hindalco.com) and the Aditya Birla Group website (www.adityabirla.com).

(iii) (I) Details of total fees paid to Statutory Auditor

During the FY 2020-21, the total fees charged for audit, audit related services and non-assurance services provided by Price Waterhouse & Co Chartered Accountants LLP (FRN 304026E/ E300009) and other member firms of PricewaterhouseCoopers global network of firms to the Company and its subsidiaries on a consolidated basis is as follows:

(₹ in crore)

	Price Waterhouse & Co Chartered Accountants LLP*	Other member firms of Price Waterhouse Coopers global network of firms*
Statutory audit and Limited Review	4.63	81.31
Audit of special purpose financial statements of certain foreign subsidiaries	0.17	-
Tax and Transfer pricing services	-	1.26
Subscription to knowledge tools	-	0.03
Audit related services – Certifications	0.24	0.81
Total	**5.04**	**83.41**

* Excluding taxes and out of pocket expenses.

Whistle Blower Policy

The Company promotes ethical behaviour in all its business activities and has put in place a mechanism for reporting illegal and unethical behaviour. The Company has a Vigil Mechanism and Whistle Blower Policy under which employees are free to report violations of applicable laws and regulations and Code of Conduct. The whistle blower may send the complaint to the independent reporting mechanism - Ethics Hotline or to the respective Values Standards Committee (VSC), depending on the level at which the violation is perceived to be happening, or the seniority of the individual/s involved. Employees may also report to the Chairman of the Audit Committee. During the year under review, no employee was denied access to the Audit Committee.

We have a Code of Conduct, Vigil Mechanism and Whistle-Blower Policy, and Supplier Code of Conduct in place through which we promote ethical behaviour in all our business activities. Our Code, policies and standards promote ethical behaviour which helps to prevent /detect any violation of our Code of Conduct.

Prevention of Sexual Harassment

Your Company has zero tolerance for sexual harassment at workplace and has adopted a Policy on prevention, prohibition and redressal of sexual harassment at workplace in line with the provisions of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 and the Rules thereunder for prevention and redressal of complaints of sexual harassment at workplace.

The Company is committed to providing equal opportunities without regard to their race, caste, sex, religion, colour, nationality, disability etc. All women associates (permanent, temporary, contractual and trainees) as well as any women visiting the Company's office premises or women service providers are covered under this policy. All employees are treated with dignity with a view to maintain a work environment free of sexual harassment whether physical, verbal or psychological.

The Details of complaints filed, disposed and pending during the FY 2020-21 is as given below:

Number of complaints filed during the financial year	Number of complaints disposed of during the financial year	Number of complaints pending as at end of the financial year
3	1	2

CEO/CFO Certification

The Managing Director and CFO have certified to the Board that:

A. They have reviewed Financial Statements and the Cash Flow Statement for the year and that to the best of their knowledge and belief:

1. these statements do not contain any materially untrue statement or omit any material fact or contain statements that might be misleading;
2. these statements together present a true and fair view of the Company's affairs and are in compliance with existing Accounting Standards, applicable laws and regulations.

B. There are, to the best of their knowledge and belief, no transactions entered into by the Company during the year which are fraudulent, illegal or violative of the Company's code of conduct.

C. They accept responsibility for establishing and maintaining internal controls for financial reporting and that they have evaluated the effectiveness of internal control systems of the Company pertaining to financial reporting and they have disclosed to the Auditors and the Audit Committee, deficiencies in the design or operation of such internal controls, if any, of which they are aware and the steps they have taken or propose to take to rectify these deficiencies.

D. They have indicated to the Auditors and the Audit Committee:

1. that there were no significant changes in internal control over financial reporting during the year;
2. that there were no significant changes in accounting policies during the year and that the same have been disclosed in the notes to the Financial Statements; and
3. instances of significant fraud of which they have become aware and the involvement therein, if any, of

the management or an employee having a significant role in the Company's internal control system over financial reporting.

REPORT ON CORPORATE GOVERNANCE

Your Company has complied with Corporate Governance requirements specified under Regulations 17 to 27 and clause (b) to (i) of sub regulation (2) of Regulation 46 of the Listing Regulations.

COMPLIANCE

I. A certificate from the Statutory Auditors confirming compliance with the conditions of Corporate Governance as stipulated in Listing Regulations forms part of Integrated Annual Report.

II. A Certificate by Company Secretary in practice that none of the directors have been debarred or disqualified from being appointed for continuing as directors in the companies by the Board/Ministry of Corporate Affairs or any such statutory authority forms part of Integrated Annual Report as below:-

CERTIFICATE

Pursuant to regulation 34(3) and Schedule V Para C clause (10)(i) of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 ("SEBI Listing Regulations")

To

The Members
Hindalco Industries Limited
Ahura Centre, 1st Floor,
B Wing Mahakali Caves Road,
Mumbai – 400093

We have examined the relevant books, papers, minutes books, forms and returns filed, Notices received from the Directors during the financial Year 2020-21, and other records maintained by the Company and also the information provided by the Company, its officers, agents and authorised representatives of **Hindalco Industries Limited, CIN.: L27020MH1958PLC011238** (hereinafter called the 'Company') having its Registered office at Ahura Centre, 1st Floor, B Wing Mahakali Caves Road, Mumbai – 400093 for the purpose of issue of a Certificate, in accordance with Regulation 34 (3) read with Schedule V Para-C Sub clause 10 (i) of the Securities Exchange Board of India (Listing Obligations and Disclosure Requirements) 2015 (LODR), as amended vide notification no [SEBI/LAD/NRO/GN/2018/10 dated May 9, 2018 issued by SEBI.

In our opinion and to the best of our knowledge and based on such examination as well as information and explanations furnished to us, which to the best of our knowledge and belief were necessary for the purpose of issue of this certificate and based on such verification as considered necessary, we hereby certify that none of the Directors stated below who are on the Board of the Company as on 31st March 2021 have been debarred or disqualified from being appointed or continuing as Directors of the Companies by Securities Exchange Board of India or The Ministry of Corporate Affairs or any such other statutory authority.

S. No.	Name of the Director	DIN	Date of Appointment in the Company*
1	Kumar Mangalam Birla	00012813	16/11/1992
2	Rajashree Birla	00022995	15/03/1996
3	Aksaran Agarwala	00023684	11/09/1998
4	Kailash Nath Bhandari	00026078	30/01/2006
5	Debnarayan Bhattacharya	00033553	01/10/2008
6	Alka Marezban Bharucha	00114067	11/07/2018
7	Praveen Kumar Maheshwari	00174361	28/05/2016
8	Yazdi Piroj Dandiwala	01055000	14/08/2015
9	Ram Charan**	03464530	12/02/2011
10	Vikas Balia	00424524	19/07/2019
11	Satish Pai	06646758	13/08/2013
12	Sudhir Mital	08314675	11/11/2019
13	Anant Maheshwari	02963839	14/08/2020

*Date of Appointment is the date which is reflected on MCA portal.
** Resignation of Mr. Ram Charan as an Independent Director, w.e.f. 14th August, 2020

Ensuring the eligibility for the appointment / continuity of every Director on the Board is the responsibility of the management of the Company. Our responsibility is to express an opinion on these based on our verification. This certificate is neither an assurance as to the future viability of the Company nor of the efficiency or effectiveness with which the management has conducted the affairs of the Company.

For **BNP & Associates**
Company Secretaries
[Firm Regn. No. P2014MH037400]

B Narasimhan
Partner
FCS No : 1303 COP No.: 10440
UDIN: F001303C000427443

Dated : 07.06.2021
Place : Mumbai

GENERAL BODY MEETINGS

Details of Annual General Meetings

Location and time, where Annual General Meetings (AGMs) in the last three years were held:-

Year	AGM	Location	Date	Time
2019-20	AGM	By videocon ferencing Mumbai	September 10, 2020	3.00 p.m
2018-19	AGM	Nehru Centre Auditorium	August 30, 2019	3.00 p.m
2017-18	AGM	Ravindra Natya Mandir	September 21, 2018	3.00 p.m

In the last three years special resolution as set out in the respective notices for AGM's were passed by shareholders.

Whether any special resolution passed last year through postal ballot? No

Person who conducted the postal exercise: Not Applicable

Whether any special resolution is proposed to be conducted through postal ballot: No

MEANS OF COMMUNICATION

- Quarterly Results:

Newspaper	Cities of Publication
Business Standard (English)	All editions
Navshakti (Marathi)	Mumbai Edition only

Any website, where displayed:
www.hindalco.com
www.adityabirla.com

- Whether the Company Website displays:

➢ All official news releases	Yes
➢ Presentation made to Institutional Investors/Analysts	Yes

General Shareholder Information

The same is provided in the 'Shareholder Information' section.

Status of compliance of Non mandatory requirement

1. The Company maintains a separate office for the Non-Executive Chairman. All necessary infrastructure including vehicles for business purpose and assistance are available to enable him discharge his responsibilities effectively.
2. During the period under review, there is no audit qualification in the financial statement.
3. The post of the Non-Executive Chairman of the Board is separate from that of the Managing Director/CEO.
4. The Company has engaged internal auditors for aluminium and copper business separately and their report is reviewed by the Audit Committee.

Auditor's Certificate regarding compliance of conditions of Corporate Governance

To the Members of Hindalco Industries Limited

We have examined the compliance of conditions of Corporate Governance by Hindalco Industries Limited ("the Company"), for the year ended March 31, 2021 as stipulated in Regulations 17, 17A, 18, 19, 20, 21, 22, 23, 24, 24A, 25, 26, 27 and clauses (b) to (i) of sub-regulation (2) of regulation 46 and para C , D and E of Schedule V of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 (as amended) (collectively referred to as "SEBI Listing Regulations, 2015").

The compliance of conditions of Corporate Governance is the responsibility of the Company's management. Our examination was carried out in accordance with the Guidance Note on Certification of Corporate Governance, issued by the Institute of Chartered Accountants of India and was limited to procedures and implementation thereof, adopted by the Company for ensuring the compliance of the conditions of Corporate Governance. It is neither an audit nor an expression of opinion on the financial statements of the Company.

In our opinion and to the best of our information and according to the explanations given to us, we certify that the Company has complied with the conditions of Corporate Governance as stipulated in the SEBI Listing Regulations, 2015.

We state that such compliance is neither an assurance as to the future viability of the Company nor the efficiency or effectiveness with which the management has conducted the affairs of the Company.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Place: Mumbai
Date: July 2, 2021
UDIN: 21105869AAAAAW4459

Sumit Seth
Partner
Membership No: 105869

SHAREHOLDER INFORMATION

1. Annual General Meeting

- Date and Time : 23rd August, 2021 at 3:00 p.m.
- Mode : Video conferencing (VC) / Other audio visual means (OAVM)

2. Financial Year : April 1, 2020 to March 31, 2021

Financial calendar

Board Meetings for approval of : Tentative Dates

- Financial results for the quarter ending June 30, 2021 : On or before 14th August, 2021
- Financial results for the half year ending September 30, 2021 : On or before 14th November, 2021
- Financial results for the quarter ending December 31, 2021 : On or before 14th February, 2022
- Financial results for the year ending March 31, 2022 (Audited) : On or before 30th May, 2022
- Annual General Meeting for the year ended March 31, 2022 : On or before 31st August, 2022

3. Date of Book Closure : 17th August, 2021 to 23rd August, 2021 (both days inclusive)

4. Dividend Payment Date : On or after 23rd August, 2021

5. Registered Office : Ahura Centre, 1st Floor,
B Wing, Mahakali Caves Road,
Andheri (East), Mumbai - 400 093.
Tel: (91-22) 66917000
Fax: (91-22) 66917001
E-Mail: hilinvestors@adityabirla.com
Website: www.hindalco.com
CIN No. L27020MH1958PLC011238

6. a. Listing Details:

Equity Shares	Global Depository Receipts (GDRs)	Non-Convertible Debentures
BSE Limited Phiroze Jeejeebhoy Towers Dalal Street, Mumbai - 400 001.	Luxembourg Stock Exchange 35 A Boulevard Joseph II L-1840 Luxembourg	**National Stock Exchange of India Limited** "Exchange Plaza", Bandra Kurla Complex Bandra (East), Mumbai - 400 051.
National Stock Exchange of India Limited "Exchange Plaza", Bandra Kurla Complex Bandra (East), Mumbai - 400 051.		

Note: Listing fees has been paid to all the Stock Exchanges as per their Schedule.

b. Overseas Depository for GDRs : J.P. Morgan Chase Bank N.A.
P.O. Box 64504
St. Paul, MN 55164-0504
jpmorgan.adr@eq-us.com

c. Domestic Custodian of GDRs : Citibank N.A.
Custody Services
FIFC , 11th Floor, C54 & 55 , G Block, Bandra Kurla Complex,
Bandra (East), Mumbai - 400 098
Tel.: 91-22- 61756895
Fax: 91-22-26532205

7. ISIN : Fully paid up equity share: ISIN INE038A01020
GDR: ISIN US4330641022
CUSIP No. 433064300

8. Details of Debenture issued:

Interest Payment Date	Interest	Series	Date of allotment	Tenure	Record Date	ISIN No.
25th April	Annually	9.55% Series (2012) –I	25th April,2012	10 Years	7 days prior to each interest and/or redemption payment	INE038A07258
27th June	Annually	9.55% Series (2012) –II	27th June,2012	10 Years	7 days prior to each interest and/or redemption payment	INE038A07266
2nd August	Annually	9.60% Series (2012)-III	2nd August, 2012	10 Years	7 days prior to each interest and/or redemption payment	INE038A07274

9. Stock Code:

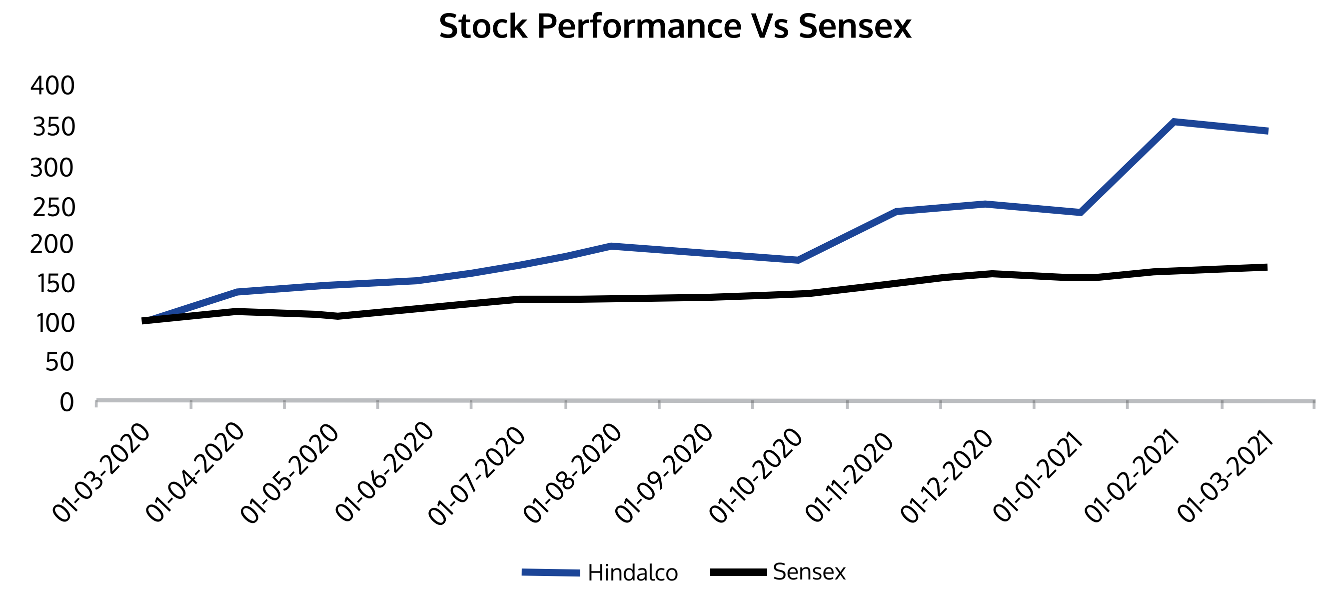
Stock Code		Scrip Code
BSE		500440
NSE		HINDALCO
Stock Exchange	**Reuters**	**Bloomberg**
BSE	HALC.BO	HNDL IN
NSE	HALC.NS	NHNDL IN
Luxembourg Stock Exchange (GDRs)	HALCg.LU	HDCD LI

10. Name and Address of Debenture Trustee : IDBI Trusteeship Services Limited
Asian Building, Ground Floor, 17 R. Kamani Marg
Ballard Estate, Mumbai: 400 001

11. Stock Price Data:

FY21	Bombay Stock Exchange				National Stock Exchange				Luxembourg Stock Exchange		
	High (In ₹)	Low	Close	Volume (In Nos)	High (In ₹)	Low	Close	Volume (In Nos)	High In US$	Low	Close
Mar-21	361	305	327	1,03,64,853	361	305	327	30,25,21,420	4.94	4.08	4.48
Feb-21	354	227	340	2,25,18,821	355	227	340	46,48,65,247	4.84	3.52	4.60
Jan-21	276	221	226	1,10,57,311	275	225	226	29,39,13,813	3.74	3.10	3.10
Dec-20	256	223	241	2,11,40,019	256	223	241	36,19,11,496	3.48	3.12	3.28
Nov-20	231	168	226	1,77,20,979	231	168	226	42,57,74,333	3.14	2.36	3.04
Oct-20	188	165	171	91,14,710	188	165	171	31,53,17,042	2.54	2.00	2.28
Sep-20	197	155	175	98,50,965	197	154	175	38,72,67,226	2.64	2.16	2.38
Aug-20	203	161	185	1,50,81,443	203	161	185	39,91,55,771	2.68	2.30	2.52
Jul-20	170	145	163	1,45,87,547	171	145	163	35,40,38,738	2.26	1.94	2.18
Jun-20	160	137	146	1,62,25,340	160	136	146	36,04,00,048	2.10	1.85	1.94
May-20	141	114	139	1,33,44,728	141	114	139	34,61,07,134	1.90	1.52	1.84
Apr-20	132	89	130	1,97,69,509	132	88	130	38,56,59,900	1.74	1.32	1.73

12. Stock Performance:



13. Stock Performance over the past few years:

	Absolute Returns (in %)		
	1 YR	3 YR	5 YR
Hindalco	241.54	52.34	271.63
SENSEX	68.01	50.17	95.37
NIFTY	70.87	45.26	89.84

	Annualised Returns (in %)		
	1 YR	3 YR	5 YR
Hindalco	241.54	15.06	30.02
SENSEX	68.01	14.51	14.33
NIFTY	70.87	13.25	13.68

14. Registrar and Transfer Agents:

The Company has In-House Investors Service Department registered with SEBI as Category II Share Transfer Agent vide Registration no INR 000003910.

Investors Service Department
Hindalco Industries Limited
Ahura Centre, 1st floor, B Wing
Mahakali Caves Road
Andheri (East), Mumbai- 400 093.
Tel: (91-22) 6691 7000
Fax: (91-22) 6691 7001
E-mail: hilinvestors@adityabirla.com

15. Share Transfer System:

As per Regulation 40 of Listing Regulations, as amended, securities of listed companies can be transferred only in dematerialized form with effect from, 01st April, 2019, except in case of request received for transmission or transposition of securities. In view of this and to eliminate all risks associated with physical shares and for ease of portfolio management, members holding shares in physical form are requested to consider converting their holdings to dematerialized form. Members can contact the Company in case of any queries by sending email to hilinvestors@adityabirla.com hence transfer in physical mode is discontinued.

16. Investor Services

a. Complaints received during the year:

Nature of complaints	2020-2021		2019-2020	
	Received	Cleared	Received	Cleared
Relating to Transfers, Transmissions Dividend, Interest, Redemption, Demat – Remat, Rights Issue and Change of Address etc.	5	5	18	18

b. Shares pending for transfer : Nil

17. Distribution of Shareholding:

DISTRIBUTION SCHEDULE AS ON MARCH 31, 2021						
Sr. No.	Shares from	Shares To	Share Holders	% of Holders	No. of Shares Held	% of Holding
1	0	1000	329,658	94.60	39,986,192	1.78
2	1001	2000	8,179	2.35	12,081,726	0.54
3	2001	5000	5,903	1.69	18,861,773	0.84
4	5001	10000	2,189	0.63	15,604,472	0.69
5	10001	50000	1,602	0.46	32,117,793	1.43
6	50001	100000	241	0.07	17,080,587	0.76
7	100001 AND ABOVE	699	0.20	2,110,951,704	93.96	
TOTAL			348,471	100	2,246,684,247	100

18. Dematerialization of Shares and Liquidity:

Around 98% of outstanding shares have been dematerialized. Trading in Hindalco Shares is permitted only in the dematerialized form 5th April, 1999 as per notification issued by Securities and Exchange Board of India.

19. Details on use of public funds obtained in 3 yrs:

Not Applicable

20. Outstanding GDR/Warrants/Convertible Bonds:

151,010,943 GDRs are outstanding as on 31st March, 2021. Each GDR represents one underlying equity share.

21. Commodity price risk or foreign exchange risk and hedging activities:

Your Company hedges its foreign currency exposure in respect of its imports and exports as per its policies. Your Company has constituted a Risk Management Committee consisting of Directors/Executives of your Company. Your Company has commodity/foreign exchange hedging from time to time considering various factors as per the policy of the Company.

The details as required under SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015 is as below:

1. Risk management policy of the listed entity with respect to commodities including through hedging.

The Company has a Risk Management Policy for Managing its Commodity Price Risk. The Policy captures the Objectives of Commodity Risk Management and the Treatment of Different Types of Exposures. The Policy lists down the Hedging Instruments that can be used, the Hedge Coverage ratios for different tenors and also mentions the Risk Management Structure at the Company.

2. Exposure of the listed entity to commodity and commodity risks faced by the entity throughout the year:

a. Total Exposure of the listed entity to commodities in INR in Millions : 6,10,739

b. Exposure of the entity to various commodities is as below:

Commodity Name	Nature of Risk (Physical)	UOM	Exposure in INR towards the particular commodity (₹ in Million)	Exposure in Quantity terms towards the particular commodity	% of such exposure hedged through commodity derivatives				
					Domestic Market		International Market		Total
					OTC	Exchange	OTC	Exchange	
Aluminium	Sell	MT	1,91,686	12,56,380	-	-	44	7	51
Furnace Oil/LSHS/LDO	Buy	MT	4,507	1,38,909	-	-	64	-	64
Imported Coal	Buy	MT	2,425	3,84,308	-	-	26	-	26
Coal Tar Pitch	Buy	bbl	2,733	4,29,486	-	-	14	-	14
RLNG	Buy	bbl	789	1,96,008	-	-	27	-	27
Copper	Buy	MT	1,66,901	3,06,877	-	-	30	4	34
Copper	Sell	MT	1,69,559	3,13,980	-	-	13	13	26
Silver (Oz)	Buy	T/Oz	2,972	17,60,362	-	-	68	-	68
Silver (Oz)	Sell	T/Oz	5,321	31,11,488	-	-	63	-	63
Gold (KG)	Buy	KG	31,056	6,939	-	97	-	-	97
Gold (KG)	Sell	KG	32,790	6,618	-	95	-	-	95

Notes:

i. Table above includes Exposure and % Hedges for FY 2020-21 only. Details of hedges done for future years has not been captured here.

ii. The table above includes commodities where a liquid derivative market exists.

iii. The Company has price risk on commodities where an active derivative market does not exist, like - Caustic Soda, Aluminum Fluoride, CP Coke, Alumina, Bauxite etc. These Commodities are not included in the table above.

iv. The Company maintains offset hedge book to eliminate the "pricing" timing mismatch for buy and sell position of Copper, Silver and Gold. Accordingly, exposure of Copper, Buy position and Sell position naturally hedged is 51 % and 70 %, respectively. Further, exposure of Silver Buy position and Sell position naturally hedged is 28 % and 21 %, respectively and exposure of Gold, sell position naturally hedged is 5%. In case of Copper Buy exposure, 15%, in case of Silver Buy exposure, 4% and in case of Gold buy exposure, 3% is not hedged represents unpriced transactions as at March 31, 2021 as the same will be hedged as and when they are priced, as per Company's policy. In case of copper sell exposure, 4% is unpriced transactions, Silver sell exposure, 16% is unpriced transactions as at March 31, 2021 as the same will be hedged as and when they are priced, as per Company's policy.

v. The Company has strategic view based exposure for Copper, Gold and Silver. However, the same is not included above as it is a small portion of the overall Copper, Gold & Silver volumes.

vi. The Company procures part of its Alumina requirement from its 100% subsidiary, Utkal Alumina International Limited. The same is not included in the above table.

c. The Company faces commodity price risk on purchase of its raw material as well as on sales of its products. The Company categorizes its price risk in broadly 2 categories - Offset Hedge Exposure and Strategic View Based Exposure. Under the Offset Hedge Program, we use derivative products to eliminate the price risk arising due to timing mismatch whereas for Strategic View Based exposure, derivative instruments are used to manage the price risk for future tenor. Hedging is done for commodities where an active derivative market exists.

22. Location of Plant and Mines:

Aluminium & Power		
Renukoot Plant* P.O. Renukoot -231217 Dist Sonebhadra, Uttar Pradesh. Tel : (05446) 252077-9 Fax: (05446) 252107/426	**Renusagar Power Division** P. O. Renusagar, Dist. Sonebhadra, Uttar Pradesh. Tel:(05446)277161-3/ 278592-5 Fax: (05446) 277164/	**Hirakud Smelter** Hirakud 768 016 Dist: Sambalpur, Orissa Tel: (0663) 2481307/1452 Fax: (0663) 2481356
Hirakud Power Post Box No.12, Hirakud 768 016 Dist: Sambalpur, Orissa Tel: (0663) 2481307 Fax: (0663) 2481342/365 Fax: (0663) 2541642	**Mahan Aluminum** Hindalco Industries Limited NH-75 E, Singrauli, Sidhi Rd, P.O Bargawan, Pin:486886 Dist : Singrauli MP Tel : 0780-5281014	**Aditya Aluminium** Hindalco Industries Limited Lapanga, Dist Sambalpur-768212 Odisha Ph: 0663-2114424 Fax: 0663-2590434

Copper	Chemicals	
Birla Copper Division P.O. Dahej, Lakhigam Dist. Bharuch – 392 130, Gujarat Tel: (02641) 256004/06, 251009 Fax: (02641) 251002	**Muri Alumina** Post Chotamuri-835 101 Dist: Ranchi, Jharkhand Phone: (06522) 244253/334 Fax: (06522) 244342	**Belagavi** Village Yamanapur Belgaum 590 010, Karnataka Tel: (0831) 2472716 Fax: (0831) 2472728

Sheet, Foil, Wheel, Packaging & Extrusions		
Belur Sheet 39, Grand Trunk Road Belurmath 711 202, Dist: Howrah West Bengal Tel: (033) 2654 7210/12 Fax: (033) 2654 9982/5740	**Taloja Sheet** Plot 2, MIDC Industrial Area Taloja A.V., Dist : Raigad Navi Mumbai - 410 208, Maharashtra Tel: (022) 2741 2261, 66292929 Fax: (022) 2741 2430/31	**Alupuram Extrusions** Alupuram, P.B. No.30 Kalamassery - 683 104 Dist: Ernakulam, Kerala Tel: (0484) 2532441-48 Fax: (0484) 2532468
Mouda Unit Village Dahali Ramtek Road, Mouda Nagpur – 441 1104 Tel: (07115) 660777/786	**Hirakud FRP** Hindalco Industries Limited Hirakud-768016 Dist- Sambhalpur, Odisha Tel: (0663) 6625000 Fax No(0663) 2481344	

Mines		
Durgmanwadi Bauxite Mines At Post Radhanagri, Dist: Kolhapur, Maharashtra - 416 212 Tel: (02321) 2371008 Fax: (02321) 237478	**Lohardaga Bauxite Mines** Dist: Lohardaga - 835 302 Jharkhand Tel/ Fax: (06526) 224112	**Samari Bauxite Mines** P.O: Kusumi - 497222 Dist : Sarguja ChattisgarhTel/ Fax(07778)274325
Gare Palma Mines (IV/4 & V/5) Underground Coal Mines Village & Post Milupura Tehsil Tamnar Dist: Raigarh Chhattisgarh:496107	**Kathautia Coal Mine** Kathautia Open Cast Coal Mine (Koccm), Village Kathautia P.O Naudiha, PS Pandwa, Dist:Palamau Jharkhand:822123	**Dumri Coal Mine** 103, Commerce Tower Near Mahavir Tower, Main Road, Ranchi - 834001 Tel: (0651) 2330944/48 Fax: (0651)2330782

*Renukoot works has also manufacturing facilities of Chemicals, Sheets and Extrusions.

23. Investor Correspondence:

The Company Secretary
Hindalco Industries Limited
Ahura Centre, 1st Floor, B Wing
Mahakali Caves Road, Andheri (E)
Mumbai: 400093
Tel: (91-22) 66917000
Fax: (91-22) 66917001
Email: hilinvestors@adityabirla.com

24. Categories of Shareholding (as on 31st March):

Category of Shareholders	2021				2020			
	Number of Share holders	% of share holders	Number of Shares held	% share holding	Number of Share holders	% of share holders	Number of Shares held	% share holding
Promoters*	17	0.00	77,83,39,497	34.64	17	0.01	77,83,39,497	34.65
Mutual Funds & UTI	213	0.06	25,55,08,739	11.37	212	0.06	34,50,24,221	15.36
Banks/ Financial Institutions/ Ins/Govt	87	0.02	21,21,64,263	9.44	104	0.03	25,43,26,126	11.32
FIIs	711	0.20	56,17,59,112	25.01	621	0.19	41,96,66,017	18.68
Corporates	1,776	0.51	12,34,13,264	5.49	2,125	0.64	12,46,75,484	5.55
Individuals/Shares In Transit/ Trust	3,38,181	97.05	13,39,25,040	5.97	3,21,251	96.76	14,31,08,114	6.37
NRIs/ OCBs/Foreign Nationals	7,484	2.16	3,92,80,733	1.75	7,681	2.31	3,99,20,998	1.78
GDRs	1	0.00	13,64,68,634	6.07	1	0.00	13,52,76,558	6.02
Shares held by Employee trust	1	0.00	58,24,965	0.26	1	0.00	58,85,672	0.26
Total	**3,48,471**	**100**	**2,24,66,84,247**	**100**	**3,32,013**	**100.00**	**2,24,62,22,687**	**100.00**

*Includes GDRs held by Promoter Group Companies.

25. Per share data (as per Standalone Financial Statement)

Particulars	2020-2021	2019-20	2018-19	2017-18	2016-17
Net Earnings (Rs. in Crore)	993	620	1,205	1,436	1,557
Cash Earnings # (Rs. in Crore)	2,841	2,328	2,899	3,053	2,985
Basic EPS (Rs.)	4.46	2.79	5.41	6.45	7.56
Cash EPS (Rs.) **	12.77	10.47	13.01	13.70	14.49
Dividend per share (Rs.)	3.00@	1.00	1.20	1.20	1.10
Dividend pay out (%)##	67.88@	36.23	26.92	22.58	19.08
Book Value per share (Rs.)	222.84	202.54	216.24	220.28	211.00
Price to earning (x)*	73.28	34.33	37.99	33.28	25 .80
Price to cash earning (x) *	25.59	9.14	15.80	15.66	13.46
Price to Book Value (x) *	1.47	0.47	0.95	0.97	0.92

Net Earnings plus Depreciation and Amortisation and Impairment Loss on Non-current Assets.
@ proposed dividend
* Stock price as on 31st March
** Cash EPS – Cash Earnings divided by Weighted average numbers of equity shares used in computing basic EPS
For calculation of dividend payout ratio of FY 2018-19, 2017-18 and 2016-17 dividend includes Dividend Distribution Tax.

26. LIST OF CREDIT RATINGS

CARE ratings have provided the following ratings for the financial year 2020-2021

Instrument	Rating	Rating Action
Long Term Bank facilities-Term Loan and Fund based facilities	Care AA+/Negative Outlook	Reaffirmed
Long Term / Short term Bank facilities-Non Fund based	Care AA+; Negative/ Care A1+ Negative Outlook	Reaffirmed
Non Convertible Debenture	Care AA+/Negative Outlook	Reaffirmed
Commercial Paper	Care A1+	Reaffirmed

Crisil reaffirmed the Rating as CRISIL AA with "Stable" outlook on April 23, 2020. The same has been revised to CRISIL AA with "Positive" outlook on May 03, 2021 on Non-convertible debentures. Crisil reaffirmed the rating as CRISIL A1+ for commercial paper.

27. OTHER USEFUL INFORMATION FOR SHAREHOLDERS

Shareholders who have not yet encashed their dividend warrants for the years 2013-2014 to 2019-2020 may approach the Company with a request letter quoting their Ledger Folio numbers / DP & Client ID along with dividend warrant(s) (if any) and a cancelled cheque leaf for revalidation/claim.

The details of Dividend paid by the Company and the respective due dates of transfer of unclaimed/un-encashed dividend to the designated fund of the Central Government is enumerated below:

Date of Declaration	Financial year of Dividend	Due date of transfer to the Government	Amount in ₹ (as on 31st March, 2021)
September 24, 2014	2013-2014	October 31, 2021	47,80,856.00
September 16, 2015	2014-2015	October 23, 2022	57,13,171.49
September 14, 2016	2015-2016	October 21, 2023	57,16,647.00
September 13, 2017	2016-2017	October 20, 2024	66,79,526.90
September 21, 2018	2017-2018	October 27, 2025	70,95,963.60
August 30, 2019	2018-2019	October 7, 2026	68,25,355.80
September 10, 2020	2019-2020	October 17, 2027	54,06,775.00

Pursuant to the provisions of Investor Education and Protection Fund Authority (Accounting, Audit, Transfer and Refund) Rules 2016 read with Investor Education and Protection Fund Authority (Accounting, Audit, Transfer and Refund) Amendment 2017, the Company is mandated to transfer all such shares to Investor Education and Protection Fund (IEPF) in respect of which dividend has not been claimed for seven consecutive years or more.

The unclaimed dividend amount for the financial year 2012-2013 and 10,92,463 Equity Shares related to unclaimed dividend for the financial year have been credited to Investor Education and Protection Fund (IEPF).

Shareholder can claim the unclaimed dividend amounts and shares credited to IEPF with a separate application made to the IEPF Authority, in Form IEPF-5, as prescribed under the Rules and are available at IEPF website i.e www.iepf.gov.in.

In case of any query contact –

Hindalco Industries limited
Ahura Centre, 1st floor, B Wing
Mahakali Caves Road
Andheri (East), Mumbai- 400 093.
Tel: (91-22) 6691 7000
Fax: (91-22) 6691 7001
Email ID: hilinvestors@adityabirla.com

Green Initiative in Corporate Governance – Service of Documents in Electronic Form

As you are aware, Ministry of Corporate Affairs Government of India (MCA) vide its Circular(s) Nos. 17 and 18 dated 21st April, 2011 and 29th April, 2011 respectively has now allowed the companies to send Notices of General Meetings/other Notices, Audited Financial Statements, Director's Report, Auditor's Report etc. henceforth to their shareholders electronically as a part of its Green Initiative in Corporate Governance.

Keeping in view the aforesaid green initiative of MCA, your Company shall send the Annual Report and other documents to its shareholders in electronic form at the e-mail address provided by them and made available to us by the Depository.

Further this year in view of the outbreak of COVID-19 pandemic and owing to the difficulties involved in dispatching of physical copies of Annual Report, the Ministry of Corporate Affairs ("MCA") has vide its circular no 20/2020 dated 5 May 2020 and further circular no. F NO. 2/6//2020-CL-V dated 13th January, 2021 directed the Companies to send the Annual Report only by e-mail to all the Members of the Company. Therefore, the Annual Report for FY 2020-21 and notice of AGM is being sent to the Members at their registered e-mail addresses in accordance with MCA and SEBI Circulars.

Unclaimed Shares in Physical Form

Regulation 39(4) of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 provides the manner of dealing with shares issued in physical form pursuant to public issue or any other issue which remains unclaimed with the Company. In compliance with the provisions of Listing Regulations, the Company has sent three reminders to the shareholders whose share certificates are lying unclaimed.

Disclosures pursuant to Regulation 39(4) of Listing Regulation are as below:

- Aggregate number of shareholders and outstanding shares lying in Unclaimed Suspense account lying as at 1st April, 2020:

  737 Shareholders holding 4,22,953 Equity Shares of the Company .

- Number of shareholders who approached the issuer for transfer of shares from Unclaimed Suspense Account during the year

  5 Shareholders holding 1457 Equity Shares of the Company

- Number of shareholders to whom shares were transferred from Unclaimed Suspense Account during the year

  5 Shareholders holding 1457 Equity Shares of the Company

  732 Shareholders holding 427,636 Equity Shares were transferred to Investor Education and Protection Fund Account.

- Aggregate number of shareholders and outstanding shares lying in Unclaimed Suspense Account as at 31st March, 2021

  Nil shareholders holding Nil Equity Shares.

  Nil Equity Shares in physical form for transmission/ deletion.

  Nil Equity Shares in physical form includes above mentioned Nil Equity Shares.

  Entire Outstanding Unclaimed shares in Suspense account has been transferred to Investor Education and Protection Fund account established by Central Government.

Other Information

(i) Equity Shares of the Company are under compulsory demat trading by all investors, with effect from April 05, 1999. Considering the advantages of scrip less trading, shareholders are requested to consider dematerialization of their shareholding so as to avoid inconvenience in future.

   BSE has vide circular dated July 05, 2018 informed about amendment to Regulation 40 of Listing Regulations mandating the transfer of securities would be carried out in dematerialised form only. This restriction shall not be applicable to the request received for Deletion, Transmission or Transposition of physical shares.

(ii) Shareholders/Beneficial Owners are requested to quote their Folio No./DP & Client ID Nos., as the case may be, in all correspondence with the Company. All correspondences regarding shares & debentures of the Company should be addressed to the Investor Service Department of the Company at Ahura Centre, 1st Floor, 'B' Wing, Mahakali Caves Road, Andheri (East), Mumbai - 400 093 and not to any other office(s) of the Company.

(iii) Shareholders holding shares in physical form are requested to notify to the Company, change in their address/Pin Code number and Bank Account details promptly by written request under the signatures of sole / first joint holder. Beneficial Owners of shares in demat form are requested to send their instructions regarding change of name, change of address, bank details, nomination, power of attorney, etc. directly to their DP.

(iv) To prevent fraudulent encashment of dividend warrants, members are requested to provide their Bank Account Details (if not provided earlier) to the Company (if shares are held in physical form) or to DP (if shares are held in demat form), as the case may be, for printing of the same on their dividend warrants.

(v) Non-resident members are requested to immediately notify:-

   - change in their residential status on return to India for permanent settlement;

- particulars of their NRE Bank Account with a bank in India, if not furnished earlier.

(vi) In case of loss/misplacement of share certificate, investors should immediately lodge a FIR/Complaint with the police and inform to Company along with original or certified copy of FIR/acknowledged copy of the complaint.

(vii) Shareholders are requested to keep record of their specimen signature before lodgment of shares with the Company to obviate possibility of difference in signature at a later date.

(viii) Shareholders(s) of the Company who have multiple accounts in identical name(s) or holding more than one Share Certificates in the same name under different Ledger Folio(s) are requested to apply for consolidation of such Folio(s) and send the relevant Share Certificates to the Company.

(ix) Shareholders are requested to give us their valuable suggestions for improvement of our investor services.

(x) Shareholders are requested to quote their E-mail Ids, Telephone/Fax numbers for prompt reply to their communication.

Financial Statements

INDEPENDENT AUDITOR'S REPORT ON THE CONSOLIDATED FINANCIAL STATEMENTS

To the Members of Hindalco Industries Limited

Report on the Audit of the Consolidated Financial Statements

Opinion

1. We have audited the accompanying consolidated financial statements of Hindalco Industries Limited (hereinafter referred to as the 'Holding Company') and its subsidiaries (Holding Company and its subsidiaries together referred to as 'the Group'), its joint ventures and associate companies (refer Note 54 to the attached consolidated financial statements), which comprise the consolidated Balance Sheet as at March 31, 2021, and the consolidated Statement of Profit and Loss (including Other Comprehensive Income), the consolidated Statement of Changes in Equity and the consolidated Statement of Cash Flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies and other explanatory information prepared based on the relevant records (hereinafter referred to as "the consolidated financial statements").

2. In our opinion and to the best of our information and according to the explanations given to us, the aforesaid consolidated financial statements give the information required by the Companies Act, 2013 ("the Act") in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India, of the consolidated state of affairs of the Group, its joint ventures and associate companies as at March 31, 2021, of consolidated total comprehensive income (comprising of profit and other comprehensive income), consolidated changes in equity and its consolidated cash flows for the year then ended.

Basis for opinion

3. We conducted our audit in accordance with the Standards on Auditing (SAs) specified under Section 143(10) of the Act. Our responsibilities under those Standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group, its joint ventures and its associate companies in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in India in terms of the Code of Ethics issued by ICAI and the relevant provisions of the Act, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained and the audit evidence obtained by the other auditors in terms of their reports referred to in sub-paragraphs 16 and 17 of the Other Matters paragraph below, other than the unaudited financial statements / financial information as certified by the Management and referred to in sub-paragraph 18 of the Other Matters paragraph below, is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

4. Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters	How our audit addressed the key audit matters
A. Measurement of inventory quantities of coal, bauxite, copper concentrate and work in progress consisting of precious metals	
Refer Notes 1D (l) and 11 (d) to the consolidated financial statements. Of the Holding Company's ₹ 15,989 crores of inventory as at March 31, 2021, ₹ 3,179 crores of inventory comprised of coal, bauxite, copper concentrate and work in progress consisting of precious metals. This was determined a key audit matter, as the measurement of these inventory quantities lying at the Holding Company's yards, smelters and refineries is complex and involves significant judgement and estimate resulting from measuring the surface area, dip measurement of materials in tanks/silos, etc. The Holding Company uses internal and external experts, as applicable to perform volumetric surveys and assessments, basis which the quantities of these inventories are estimated.	Our audit procedures relating to the measurement of inventory quantities of coal, bauxite, copper concentrate and work in progress of precious metals included the following: • Understanding and evaluating the design and operating effectiveness of controls over physical count and measurement of such inventory; • Evaluation of competency and capabilities of management's experts; • Physically observing inventory measurement and count procedures carried out by management using experts, to ensure its appropriateness and completeness and performing roll forward procedures; and • Obtaining and inspecting inventory measurement and physical count results for such inventories, including assessing and evaluating the results of analysis performed by management in respect of differences between book and physical quantities.

Key audit matters	How our audit addressed the key audit matters
	Based on the above procedures performed, we did not identify any material exceptions in the measurement of inventory quantities of coal, bauxite, copper concentrate and work in progress inventories consisting of precious metals.
B. Provisions recognised and contingencies disclosed with regard to certain legal and tax matters	
Refer Notes 1D(k), 9C, 10, 22 and 43 to the consolidated financial statements. As at March 31, 2021, the Holding Company has paid deposits under protest, recognised provisions and disclosed contingent liabilities towards various legal and tax matters. There are number of legal, direct and indirect tax cases against the Holding Company, including environmental, mining, local and state levies, income tax holidays, availing of input tax credits, etc. This is a key audit matter, as evaluation of these matters requires management judgement and estimation, interpretation of laws and regulations and application of relevant judicial precedents to determine the probability of outflow of economic resources for recognising provisions, disclosing contingent liabilities and making related disclosures in the consolidated financial statements.	Our audit procedures relating to provisions recognised and contingencies disclosed regarding certain legal and tax matters included the following: • Understanding and evaluating the design and operating effectiveness of controls over the recognition, measurement, presentation and disclosures made in the consolidated financial statements in respect of these matters; • Obtaining details of legal and tax matters, inspecting the supporting documents to evaluate management's assessment of probability of outcome and the magnitude of potential loss, and testing related to provisions and disclosures in the consolidated financial statements; • Reviewing orders and other communication from regulatory authorities and management responses thereto; • Reviewing management expert's legal advice and opinion as applicable, obtained by the Holding Company's management for evaluating certain legal matters and evaluating competence and capabilities of the experts; and • Using auditor's experts for assistance in evaluating certain significant and complex direct and indirect tax matters. Based on the above procedures performed, we did not identify any material exceptions in the provision recognised and contingent liabilities disclosed in the consolidated financial statements with regard to such legal and tax matters.
C. Accounting of derivatives and hedging transactions	
Refer Notes 1B (R) and 46 to the consolidated financial statements. Holding Company's financial performance is significantly impacted by fluctuations in prices of aluminium, copper, gold, silver, furnace oil, coal, coal tar pitch, foreign exchange rates and interest rates. The Holding Company takes a structured approach to the identification, quantification and hedging of such risks by using various derivatives (e.g. forwards, swaps, futures, options and embedded derivatives) in commodities and/or foreign currencies. These hedges are designated as either cash flow or fair value hedges, and in certain cases remains non-designated. As at March 31, 2021, the carrying value of the Holding Company's derivatives included derivative assets amounting to ₹ 720 crores and derivative liabilities amounting to ₹ 1,945 crores. Derivative and hedge accounting is considered a key audit matter, because of its significance to the consolidated financial statements, the volume, nature and types of hedging relationships, including complexity involved in the application of hedge accounting principles in accordance with Ind AS 109, Financial Instruments.	Our audit procedures related to accounting of derivatives and hedging transactions included the following: • Understanding and evaluating the design and operating effectiveness of controls over accounting of derivatives and hedging transactions; • Testing qualifying criteria for hedge accounting in accordance with Ind AS 109, including: ✓ Understanding the risk management objectives and strategies for different types of hedging programs; ✓ Evaluating that the hedging relationship consists only of eligible hedging instruments and hedged items; ✓ Using auditor's expert for assistance in verifying hedge effectiveness requirements of Ind AS 109, Financial Instruments, including the economic relationship between the hedged item and the hedging instrument. • Testing appropriateness of hedge accounting to qualified hedge relationships i.e. cash flow and fair value hedges; and • Testing related presentation and disclosures in the consolidated financial statements. Based on the above procedures performed, we did not identify any material exceptions in the amounts, presentation and disclosures made in the consolidated financial statements relating to accounting of derivatives and hedging transactions.

5. The following Key Audit Matters were included in the Memorandum of Work Performed issued by other auditor whose audit report dated May 20, 2021, contained an unmodified audit opinion on the consolidated financial information of Novelis Inc. ("Novelis"), a subsidiary of the Holding Company, which is reproduced by us as under:

Key audit matters	How the other auditor addressed the key audit matters
Goodwill impairment assessment	
The Company's consolidated goodwill balance was ₹ 23,329 crores as of March 31, 2021. Management conducts an impairment test as of the last day of March of each year, or more frequently if events or circumstances indicate that the carrying value of goodwill may be impaired. As disclosed by management, potential impairment is identified by comparing the recoverable value of each cash generating unit to its carrying value. The Company estimates the recoverable value based on fair value less costs to sell approach. If the carrying value exceeds the recoverable value, management records an impairment charge in an amount equal to that excess. The determination of recoverable value using the market and income approaches requires the use of management's significant assumptions related to selection of market multiples and control premium for the market approach and sales volumes, conversion premium, capital spending, working capital changes and the discount rate for the income approach. The principal considerations for our determination that performing procedures relating to the goodwill impairment assessment is a Key Audit Matter are (i) the significant judgment by management when developing the fair value measurement of the cash generating units; (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management's significant assumptions related to market multiples and control premium for the market approach and sales volumes, conversion premium, capital spending and the discount rate for the income approach; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge. Refer Notes 14 and 41 in the consolidated financial information of Novelis.*	Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial information. Our procedures included, among others: (i) Understanding and evaluating the design and testing the effectiveness of controls relating to management's goodwill impairment assessment, including controls over the valuation of the Company's cash generating units; (ii) Testing management's process for developing the fair value estimate of the cash generating units; (iii) Evaluating the appropriateness of the income and market approaches and the weighting of the approaches; (iv) Testing the completeness and accuracy of underlying data used in the approaches; (v) Evaluating the reasonableness of the significant assumptions used by management in the income and market approaches; (vi) Evaluating management's assumptions related to sales volumes and prices, costs to produce, and capital spending involved evaluating whether the assumptions used by management were reasonable considering (i) the current and past performance of the cash generating units; (ii) the consistency with external market and industry data; and (iii) whether these assumptions were consistent with evidence obtained in other areas of the audit; and (vii) Professionals with specialized skill and knowledge were used to assist in evaluating the appropriateness of the income and market approaches, the weighting of the approaches, and evaluating the reasonableness of the discount rate, control premium and market multiples assumptions. As a result of our procedures performed, no misstatements were noted.
Acquisition of Aleris Corporation - Valuation of Customer Relationships and Acquired Technology Intangible Assets	
The Company completed its acquisition of Aleris Corporation for net consideration of ₹ 5,788 crores during the year ended March 31, 2021, which resulted in recording ₹ 3,460 crores of customer relationships and acquired technology intangible assets. Management determined that the acquisition qualifies as a business combination in accordance with Ind AS 103, Business Combinations. Management makes significant estimates and assumptions regarding the fair values of the elements of the business combination as of the date of acquisition, including the fair values of customer relationships and acquired technology intangible assets, which were valued using the multi-period excess earnings or the relief from royalty methods.	Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial information. Our procedures included, among others: (i) Understanding and evaluating the design and testing the effectiveness of controls relating to the acquisition accounting, including controls over management's valuation of the intangible assets and controls over development of the discount rate and revenue growth rates assumptions utilized in the valuation of the intangible assets; (ii) Reading the purchase agreement; (iii) Evaluating management's accounting related to the business combination in accordance with Ind AS 103, Business Combinations;

Key audit matters	How the other auditor addressed the key audit matters
Significant estimates and assumptions used in estimating the fair values include subjective and/or complex judgments regarding items such as discount rate, revenue growth rates, projected EBITDA margins, customer attrition rates, economic lives, and other factors, which are used to derive the estimated future cash flows that management expects to generate from the acquired assets. The principal considerations for our determination that performing procedures relating to the acquisition of Aleris Corporation is a Key Audit Matter are (i) the high degree of auditor judgment and subjectivity in performing procedures relating to the fair value measurement of the customer relationships and acquired technology intangible assets due to the significant judgment by management when developing the estimates; (ii) the significant audit effort in evaluating management's significant assumptions related to the discount rate and revenue growth rates; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge. Refer to Note 43 to the consolidated financial information of Novelis.**	(iv) Testing management's process for estimating the fair value of customer relationships and acquired technology intangible assets; (v) Testing management's process included evaluating the appropriateness of the multi-period excess earnings and relief from royalty methods, testing the completeness and accuracy of the underlying data provided by management, and evaluating the reasonableness of significant assumptions related to the discount rate and revenue growth rates. Evaluating the reasonableness of the revenue growth rates involved considering the past performance of the acquired business, as well as economic and industry forecasts. Evaluating the reasonableness of the discount rate involved considering the cost of capital of comparable businesses and other industry factors; and (vi) Professionals with specialized skill and knowledge were used to assist in the evaluation of management's multi-period excess earnings and relief from royalty methods and management's significant assumption related to the discount rate. As a result of our procedures performed, no misstatements were noted.

* These notes are included in Note 1(D) (b) and 4 of the consolidated financial statements

** This note is included in Note 49 of the consolidated financial statements

6. The following Key audit matter was included in the Memorandum of Work Performed issued by an independent firm of Chartered Accountants along with their audit report dated April 30, 2021, which contained an unmodified audit opinion on the financial statements of Utkal Alumina International Limited ("Utkal"), a subsidiary of the Holding Company, which has been reproduced by us as under:

Key audit matters	How the other auditor addressed the key audit matters
Valuation of deferred tax assets, including recognised Minimum Alternate Tax (MAT) credit	
The Company has significant amount of deferred tax assets, mainly resulting from carry forward unabsorbed depreciation and MAT credit as per Income Tax Act. The valuation of deferred tax assets including MAT is significant to our audit because the risk exists that future taxable profits will not be sufficient to fully recover the deferred tax assets including MAT credit. Management supports the recoverability of the deferred tax assets mainly with income projections which contain estimates of and tax strategies for future taxable income. Refer Notes 9 & 37* of Utkal's financial statements.	Our audit procedures included: • Evaluating the management' determination of the estimated manner in which the deferred tax asset would be utilised by comparing the management's assessment to business plans and long term profit forecasts and the key assumptions used in the projections based on our knowledge of the business and the industry in which the Company operates; • Critically assessing whether profit forecasts are reasonable in relation to historical trends, current year performance and future plans; • We also reperformed the calculation of deferred taxes, checking that the tax rate applied is proper. We compared the tax plans with the Company's budget on a sample basis in terms of the recoverability of deferred tax assets from temporary differences and from carried forwards of unabsorbed depreciation and MAT credit; • Using our own tax team to assist us in assessing the appropriateness of the level of deferred taxes recognised in the balance sheet; and • We assessed the adequacy of the income tax disclosures to the financial statements, setting out the basis of the deferred tax balance and the level of estimation involved. Our audit procedures did not lead to any reservations regarding the recognition, measurement and disclosure of deferred taxes.

* These notes are included in Note 9 of the consolidated financial statements.

Other information

7. The Holding Company's Board of Directors is responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated financial statements and our auditor's report thereon. The annual report is expected to be made available to us after the date of this auditor's report.

   Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

   In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

   When we read the annual report, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance and take appropriate action as applicable under the relevant laws and regulations.

Responsibilities of management and those charged with governance for the consolidated financial statements

8. The Holding Company's Board of Directors is responsible for the preparation and presentation of these consolidated financial statements in term of the requirements of the Act that give a true and fair view of the consolidated financial position, consolidated financial performance and consolidated cash flows and changes in equity of the Group including its joint ventures and associate companies in accordance with the accounting principles generally accepted in India, including the Accounting Standards specified under Section 133 of the Act. The respective Board of Directors of the companies included in the Group and of its joint ventures and associate companies are responsible for maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding the assets of the Group and for preventing and detecting frauds and other irregularities; selection and application of appropriate accounting policies; making judgments and estimates that are reasonable and prudent; and the design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring accuracy and completeness of the accounting records, relevant to the preparation and presentation of the consolidated financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error, which have been used for the purpose of preparation of the consolidated financial statements by the Directors of the Holding Company, as aforesaid.

9. In preparing the consolidated financial statements, the respective Board of Directors of the companies included in the Group and of its joint ventures and associate companies are responsible for assessing the ability of the Group and of its joint ventures and associate companies to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the respective Board of Directors either intends to liquidate the Group and its joint ventures and associate companies or to cease operations, or has no realistic alternative but to do so.

10. The respective Board of Directors of the companies included in the Group and of its joint ventures and associate companies are responsible for overseeing the financial reporting process of the Group and of its joint ventures and associate companies.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

11. Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

12. As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

    - Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

    - Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances. Under Section 143(3)(i) of the Act, we are also responsible for expressing our opinion on whether the Holding Company has adequate internal financial controls with reference to financial statements in place and the operating effectiveness of such controls.

    - Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

    - Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the ability of the Group and its joint ventures and associate companies to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group and its joint ventures and associate companies to cease to continue as a going concern.

    - Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

    - Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group and its joint ventures and associate companies to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the audit of the financial statements of such entities included in the consolidated financial statements of which we are the independent auditors. For the other entities included in the consolidated financial statements, which have been audited by other auditors, such other auditors remain responsible for the direction, supervision and performance of the audits carried out by them. We remain solely responsible for our audit opinion.

13. We communicate with those charged with governance of the Holding Company and such other entities included in the consolidated financial statements of which we are the independent auditors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

14. We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

15. From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Other Matters

16. We did not audit the financial statements of eight subsidiaries and consolidated financial information of one subsidiary whose financial statements / financial information reflect total assets of ₹ 118,609 crores and net assets of ₹ 33,302 crores as at March 31, 2021, total revenues of ₹ 91,698 crores, total comprehensive income (comprising of profit after tax and other comprehensive income) of ₹ 3,667 crores and net cash outflows amounting to ₹ 11,059 crores for the year ended on that date, as considered in the consolidated financial statements. The consolidated financial statements also include the Group's share of total comprehensive (loss) (comprising of (loss) after tax and other comprehensive income) of ₹ (*) crore for the year ended March 31, 2021 as considered in the consolidated financial statements, in respect of one joint venture and three associate companies respectively, whose financial statements have not been audited by us. These financial statements / financial information have been audited by other auditors whose reports have been furnished to us by the Management, and our opinion on the consolidated financial statements insofar as it relates to the amounts and disclosures included in respect of these subsidiaries, joint venture and associate companies and our report in terms of sub-section (3) of Section 143 of the Act including report on Other Information insofar as it relates to the aforesaid subsidiaries, joint venture and associate companies, is based solely on the reports of the other auditors.

    * represent figures below the rounding convention used in this report

17. The financial statements of one subsidiary located outside India, included in the consolidated financial statements, which constitute total assets of ₹ 231 crores and net assets of ₹ 66 crores as at March 31, 2021, total revenues of ₹ 235 crores, total comprehensive (loss) (comprising of (loss) after tax and other comprehensive (loss)) of ₹ (16) crores and net cash inflows amounting to ₹ * crore for the year then ended, have been prepared in accordance with accounting principles generally accepted in its respective country and has been audited by other auditors under generally accepted auditing standards applicable in its respective country. The Holding Company's management

has converted the financial statements of such subsidiary located outside India from the accounting principles generally accepted in its respective country to the accounting principles generally accepted in India. We have audited these conversion adjustments made by the Holding Company's management. Our opinion in so far as it relates to the balances and affairs of such subsidiary located outside India, including other information, is based on the report of other auditor and the conversion adjustments prepared by the management of the Holding Company and audited by us.

* represent figures below the rounding convention used in this report

18. We did not audit the financial information of three subsidiaries whose financial information reflect total assets of ₹ 5 crores and net assets of ₹ * crore as at March 31, 2021, total revenues of ₹ 11 crores, total comprehensive (loss) (comprising of (loss) after tax and other comprehensive income) of ₹ (5) crores and net cash inflows amounting to ₹ * crore for the year ended on that date, as considered in the consolidated financial statements. The consolidated financial statements also include the Group's share of total comprehensive income (comprising of profit after tax and other comprehensive income) of ₹ 5 crores for the year ended March 31, 2021 as considered in the consolidated financial statements, in respect of one joint venture and one associate company, whose financial statements / financial information have not been audited by us. These financial statements/ financial information are unaudited and have been furnished to us by the Management, and our opinion on the consolidated financial statements insofar as it relates to the amounts and disclosures included in respect of these subsidiaries, joint venture and associate company and our report in terms of sub-section (3) of Section 143 of the Act including report on Other Information insofar as it relates to the aforesaid subsidiaries, joint venture and associate company, is based solely on such unaudited financial statements / financial information. In our opinion and according to the information and explanations given to us by the Management, these financial statements / financial information are not material to the Group.

   * represent figures below the rounding convention used in this report

   Our opinion on the consolidated financial statements, and our report on Other Legal and Regulatory Requirements below, is not modified in respect of the above matters with respect to our reliance on the work done and the reports of the other auditors and the financial statements / financial information certified by the Management.

Report on Other Legal and Regulatory Requirements

19. As required by Section 143(3) of the Act, we report, to the extent applicable, that:

(a) We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit of the aforesaid consolidated financial statements.

(b) In our opinion, proper books of account as required by law relating to preparation of the aforesaid consolidated financial statements have been kept so far as it appears from our examination of those books and the reports of the other auditors.

(c) The Consolidated Balance Sheet, the consolidated Statement of Profit and Loss (including Other Comprehensive Income), Consolidated Statement of Changes in Equity and the Consolidated Statement of Cash Flows dealt with by this Report are in agreement with the relevant books of account and records maintained for the purpose of preparation of the consolidated financial statements.

(d) In our opinion, the aforesaid consolidated financial statements comply with the Accounting Standards specified under Section 133 of the Act.

(e) On the basis of the written representations received from the directors of the Holding Company as on March 31, 2021 taken on record by the Board of Directors of the Holding Company and the reports of the statutory auditors of its subsidiaries and associate companies incorporated in India, none of the directors of the Group companies, its joint ventures and associate companies incorporated in India is disqualified as on March 31, 2021 from being appointed as a director in terms of Section 164(2) of the Act.

(f) With respect to the adequacy of internal financial controls with reference to consolidated financial statements of the Group and the operating effectiveness of such controls, refer to our separate report in "**Annexure A**".

(g) With respect to the other matters to be included in the Auditor's Report in accordance with Rule 11 of the Companies (Audit and Auditor's) Rules, 2014, in our opinion and to the best of our information and according to the explanations given to us:

   i. The consolidated financial statements disclose the impact of pending litigations on the consolidated financial position of the Group, its joint ventures and associate companies – Refer Note 9C, 22 and 43 to the consolidated financial statements;

   ii. Provision has been made in the consolidated financial statements, as required under the applicable law or accounting standards, for material foreseeable losses, if any, on long-term contracts including derivative contracts as at March 31, 2021 – Refer Note 22 and 46 to the consolidated financial statements in respect of such items as it relates to the Group, its joint ventures and associate companies;

   iii. There has been no delay in transferring amounts, required to be transferred, to the Investor Education and Protection Fund by the Holding Company and its subsidiaries, its joint ventures and associate companies incorporated in India except amount of ₹ * crore; and

   iv. The reporting on disclosures relating to Specified Bank Notes is not applicable to the Group for the year ended March 31, 2021.

   * represent figures below the rounding convention used in this report

20. The Group, its joint venture and associate companies has paid/ provided for managerial remuneration in accordance with the requisite approvals mandated by the provisions of Section 197 read with Schedule V to the Act.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration Number: 304026E/ E-300009

Sumit Seth
Partner
Membership Number: 105869
UDIN: 21105869AAAAAL8208

Mumbai
May 21, 2021

ANNEXURE A TO INDEPENDENT AUDITOR'S REPORT

Referred to in paragraph 19 (f) of the Independent Auditor's Report of even date to the members of Hindalco Industries Limited on the consolidated financial statements as of and for the year ended March 31, 2021

Report on the Internal Financial Controls with reference to financial statements under Clause (i) of Sub-section 3 of Section 143 of the Act

1. In conjunction with our audit of the consolidated financial statements of the Holding Company as of and for the year ended March 31, 2021, we have audited the internal financial controls with reference to financial statements of Hindalco Industries Limited (hereinafter referred to as "the Holding Company") and its subsidiaries, its joint ventures and its associate companies, which are companies incorporated in India, as of that date.

Management's Responsibility for Internal Financial Controls

2. The respective Board of Directors of the Holding Company, its subsidiaries, its joint ventures and associate companies, to whom reporting under clause (i) of sub section 3 of Section 143 of the Act in respect of the adequacy of the internal financial controls with reference to financial statements is applicable, which are companies incorporated in India, are responsible for establishing and maintaining internal financial controls based on, "internal control over financial reporting criteria established by the Holding Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India (ICAI)". These responsibilities include the design, implementation and maintenance of adequate internal financial controls that were operating effectively for ensuring the orderly and efficient conduct of its business, including adherence to the respective company's policies, the safeguarding of its assets, the prevention and detection of frauds and errors, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information, as required under the Act.

Auditor's Responsibility

3. Our responsibility is to express an opinion on the Holding Company's internal financial controls with reference to financial statements based on our audit. We conducted our audit in accordance with the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting (the "Guidance Note") issued by the ICAI and the Standards on Auditing deemed to be prescribed under Section 143(10) of the Companies Act, 2013, to the extent applicable to an audit of internal financial controls, both applicable to an audit of internal financial controls and both issued by the ICAI. Those Standards and the Guidance Note require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether adequate internal financial controls with reference to financial statements was established and maintained and if such controls operated effectively in all material respects.

Registered office and Head office: Plot No. Y-14, Block EP, Sector V, Salt Lake Electronic Complex, Bidhan Nagar, Kolkata 700 091Price Waterhouse & Co. (a Partnership Firm) converted into Price Waterhouse & Co Chartered Accountants LLP (a Limited Liability Partnership with LLP Identity no: LLPIN AAC-4362) witheffect from July 7, 2014. Post its conversion to Price Waterhouse & Co Chartered Accountants LLP, its ICAI registration number is 304026E/E-300009 (ICAI registration number before conversion was 304026E)

4. Our audit involves performing procedures to obtain audit evidence about the adequacy of the internal financial controls system with reference to financial statements and their operating effectiveness. Our audit of internal financial controls with reference to financial statements included obtaining an understanding of internal financial controls with reference to financial statements, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error.

5. We believe that the audit evidence we have obtained and the audit evidence obtained by the other auditors in terms of their reports referred to in the Other Matters paragraph below, is sufficient and appropriate to provide a basis for our audit opinion on the Holding Company's internal financial controls system with reference to financial statements.

Meaning of Internal Financial Controls with reference to financial statements

6. A Company's internal financial control with reference to financial statements is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A Company's internal financial control with reference to financial statements includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorisations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorised acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Inherent Limitations of Internal Financial Controls with reference to financial statements

7. Because of the inherent limitations of internal financial controls with reference to financial statements, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of the internal financial controls with reference to financial statements to future periods are subject to the risk that the internal financial control with reference to financial statements may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Opinion

8. In our opinion, the Holding Company, its subsidiaries and its associate companies, which are companies incorporated in India, have, in all material respects, an adequate internal financial controls system with reference to financial statements and such internal financial controls with reference to financial statements were operating effectively as at March 31, 2021, based on the internal control over financial reporting criteria established by the Holding Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India.

Other Matters

9. Our aforesaid reports under Section 143(3)(i) of the Act on the adequacy and operating effectiveness of the internal financial controls with reference to financial statements insofar as it relates to seven subsidiaries and three associate companies, which are companies incorporated in India, is based on the corresponding reports of the auditors of such companies incorporated in India. Our opinion is not modified in respect of this matter.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration Number: 304026E/ E-300009

Sumit Seth
Partner
Membership Number: 105869
UDIN : 21105869AAAAAL8208

Mumbai
May 21, 2021

CONSOLIDATED BALANCE SHEET

As at March 31, 2021

(₹ in Crore)

	Note	As at 31/03/2021	As at 31/03/2020
ASSETS			
Non-Current Assets			
Property, Plant and Equipment (including Right of Use Assets)	2	70,849	66,067
Capital Work-in-Progress	2	10,013	7,610
Investment Property	3	21	22
Goodwill	4	23,317	20,098
Other Intangible Assets	5	6,082	3,008
Intangible Assets under Development	5	189	111
Equity Accounted Investments	48	46	41
Financial Assets			
Investments	6A	7,670	3,091
Trade Receivables	12	53	56
Loans	7	12	12
Derivatives	46	256	49
Other Financial Assets	8A	1,147	292
Non-Current Tax Assets (Net)	9C	4	329
Deferred Tax Assets (Net)	9B	887	910
Other Non-Current Assets	10	1,525	1,550
		122,071	103,246
Current Assets			
Inventories	11	30,668	22,384
Financial Assets			
Investments	6B	9,417	6,279
Trade Receivables	12	12,959	9,345
Cash and Cash Equivalents	13	8,339	21,303
Bank Balances other than Cash and Cash Equivalents	14	470	266
Loans	7	47	55
Derivatives	46	1,495	2,382
Other Financial Assets	8B	1,089	810
Current Tax Assets (Net)	9C	207	255
Other Current Assets	10	2,785	3,093
		67,476	66,172
Non-Current Assets or Disposal Group Classified as Held For Sale	15	152	110
		67,628	66,282
		189,699	169,528
EQUITY AND LIABILITIES			
Equity			
Equity Share Capital	16	222	222
Other Equity	17	66,311	58,095
		66,533	58,317
Non-Controlling Interest		10	10
		66,543	58,327
Liabilities			
Non-Current Liabilities			
Financial Liabilities			
Borrowings	18A	58,985	58,379
Lease Liabilities	2	928	872
Trade Payables	20		
(I) Outstanding Dues of Micro Enterprises and Small Enterprises		-	-
(II) Outstanding Dues other than Micro Enterprises and Small Enterprises		-	-
Derivatives	46	427	255
Other Financial Liabilities	21A	133	79
Provisions	22	8,146	8,337
Contract Liabilities	24	12	14
Deferred Tax Liabilities (Net)	9B	4,493	4,671
Other Non-Current Liabilities	23	1,539	1,377
		74,663	73,984
Current Liabilities			
Financial Liabilities			
Borrowings	18B	6,029	8,717
Lease Liabilities	2	300	270
Supplier's Credit	19	255	-
Trade Payables	20		
(I) Outstanding Dues of Micro Enterprises and Small Enterprises		58	20
(II) Outstanding Dues other than Micro Enterprises and Small Enterprises		28,222	18,280
Derivatives	46	3,601	2,100
Other Financial Liabilities	21B	3,495	2,966
Provisions	22	2,610	2,211
Current Tax Liabilities (Net)	9C	2,116	1,576
Contract Liabilities	24	347	188
Other Current Liabilities	23	1,341	889
		48,374	37,217
Liability Associated with Disposal Group Classified as Held For Sale	15	119	-
		48,493	37,217
		123,156	111,201
		189,699	169,528
Basis of Preparation and Significant Accounting Policies	1		

The accompanying Notes are an integral part of the Consolidated Financial Statements

This is the Consolidated Balance Sheet referred in our report of even date

As per our report annexed.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sumit Seth
Partner
Membership No. 105869

For and on behalf of the Board of Hindalco Industries Limited

Praveen Kumar Maheshwari
Whole-time Director &
Chief Financial Officer
DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Anil Malik
Company Secretary

K N Bhandari
Director
DIN- 00026078

Place : Mumbai
Date : May 21, 2021

CONSOLIDATED STATEMENT OF PROFIT AND LOSS

for the year ended March 31, 2021

(₹ in Crore)

	Note	Year ended 31/03/2021	Year ended 31/03/2020
CONTINUING OPERATIONS:			
INCOME			
Revenue from Operations	25	131,985	118,144
Other Income	26	1,222	1,186
Total Income		**133,207**	**119,330**
EXPENSES			
Cost of Materials Consumed	27	77,630	68,032
Trade Purchases	28	1,098	256
Changes in Inventories of Finished Goods, Work-in-Progress and Stock-in-Trade	29	(2,146)	(17)
Employee Benefits Expense	30	10,782	8,832
Power and Fuel	31	8,646	9,695
Finance Cost	32	3,738	4,197
Depreciation and Amortization Expense	33	6,628	5,091
Impairment Loss/ (Reversal) on Non-Current Assets (Net)	34	138	44
Impairment Loss/ (Reversal) on Financial Assets (Net)	35	(26)	22
Other Expenses	36	18,327	16,974
Total Expenses		**124,815**	**113,126**
Profit/ (Loss) before Share in Profit/ (Loss) in Equity Accounted Investments, Exceptional Items and Tax		8,392	6,204
Share in Profit/ (Loss) in Equity Accounted Investments (Net of Tax)	48	5	4
Profit/ (Loss) before Exceptional Items and Tax		8,397	6,208
Exceptional Income/ (Expenses) (Net)	37	(492)	(284)
Profit/ (Loss) before Tax		**7,905**	**5,924**
Tax Expense	9A		
Current Tax Expense		1,881	1,541
Deferred Tax Expense		842	616
Profit/ (Loss) for the year from Continuing Operations		**5,182**	**3,767**
DISCONTINUED OPERATIONS:	50		
Profit/ (Loss) for the Year from Discontinued Operations		(2,066)	-
Tax Expense/ (Benefit) of Discontinued Operations		(367)	-
Profit/ (Loss) for the year from Discontinued Operations		**(1,699)**	**-**
Profit/ (Loss) for the year		**3,483**	**3,767**
Other Comprehensive Income/ (Loss)	38		
Items that will not be reclassified to Statement of Profit and Loss			
Remeasurement of Defined Benefit Obligation		1,117	(651)
Remeasurement of Defined Benefit Obligation of Discontinued Operations		60	-
Change in Fair Value of Equity Instruments Designated as FVTOCI		4,358	(2,676)
Share in Equity Accounted Investments		-	-
Income Tax effect		(327)	175
Items that will be reclassified to Statement of Profit and Loss			
Change in Fair Value of Debt Instruments Designated as FVTOCI		(9)	5
Effective Portion of Cash Flow Hedges		(1,769)	(640)
Cost of Hedging Reserve		(168)	(589)
Foreign Currency Translation Reserve		959	1,214
Income Tax effect		563	439
Other Comprehensive Income/ (Loss) for the year		**4,784**	**(2,723)**
Total Comprehensive Income/ (Loss) for the year		**8,267**	**1,044**

(₹ in Crore)

	Note	Year ended 31/03/2021	Year ended 31/03/2020
Profit/ (Loss) attributable to:			
Owners of the Company		3,483	3,767
Non-Controlling Interests		-	-
Other Comprehensive Income/ (Loss) attributable to:			
Owners of the Company		4,784	(2,723)
Non-Controlling Interests		-	-
Total Comprehensive Income/ (Loss) attributable to:			
Owners of the Company		8,267	1,044
Non-Controlling Interests		-	-
Total Comprehensive Income/ (Loss) attributable to Owners of the Company from:			
Continuing Operations		9,915	1,044
Discontinued Operations		(1,648)	-
Earnings Per Share:	39		
Basic - Continuing Operations (₹)		23.30	16.94
Diluted - Continuing Operations (₹)		23.29	16.93
Basic - Discontinued Operations (₹)		(7.64)	-
Diluted - Discontinued Operations (₹)		(7.64)	-
Basic - Continuing and Discontinued Operations (₹)		15.66	16.94
Diluted - Continuing and Discontinued Operations (₹)		15.65	16.93
Basis of Preparation and Significant Accounting Policies	1		

The accompanying Notes are an integral part of the Consolidated Financial Statements
This is the Consolidated Statement of Profit and Loss referred in our report of even date

As per our report annexed.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sumit Seth
Partner
Membership No. 105869

For and on behalf of the Board of Hindalco Industries Limited

Praveen Kumar Maheshwari
Whole-time Director &
Chief Financial Officer
DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Anil Malik
Company Secretary

K N Bhandari
Director
DIN- 00026078

Place : Mumbai
Date : May 21, 2021

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

for the year ended March 31, 2021

A. Equity Share Capital

(₹ in Crore)

Particulars	Note	Amount
Balance as at April 01, 2019	16	222
Changes in Equity Share Capital	-	
Balance as at March 31, 2020	16	222
Changes in Equity Share Capital	-	
Balance as at March 31, 2021	16	222

B. Other Equity

(₹ in Crore)

Particulars	Note	Equity Component of Other Financial Instruments	Reserve and Surplus										Other Reserves					Attributable to Owners of the Company	Attributable to Non Controlling Interests	Total Other Equity
			Capital Reserve	Capital Redemption Reserve	Business Recon-struction Reserve	Securities Premium	Debenture Redemption Reserve	Employees Stock Options	Treasury Shares heldby ESOP Trust	Special Reserve	General Reserve	Retained Earnings	Gain/ (Loss) on Equity Instruments FVTOCI	Gain/ (Loss) on Debt Instruments FVTOCI	Effective portion of Cash Flow Hedge	Cost of Hedging Reserve	Foreign Currency Translation Reserve			
Balance as at April 01, 2019		**4**	**147**	**104**	**5,799**	**8,206**	**1,050**	**21**	**(123)**	**19**	**21,370**	**16,006**	**2,991**	**4**	**200**	**502**	**979**	**57,279**	**9**	**57,288**
Transition Impact - Leases		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**(9)**	**-**	**-**	**-**	**-**	**-**	**(9)**	**-**	**(9)**
Profit/ (Loss) for the year		-	-	-	-	-	-	-	-	-	-	3,767	-	-	-	-	-	3,767	*	3,767
Other Comprehensive Income/(Loss) for the year		-	-	-	-	-	-	-	-	-	-	(486)	(2,666)	3	(405)	(383)	1,214	(2,723)	-	(2,723)
Total Comprehensive Income/(Loss) for the year		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3,281**	**(2,666)**	**3**	**(405)**	**(383)**	**1,214**	**1,044**	**-**	**1,044**
Hedging (gain)/ loss and cost of hedging transferred to non-financial assets		-	-	-	-	-	-	-	-	-	-	-	-	-	77	-	-	77	-	77
Transfer to Debenture Redemption Reserve		-	-	-	-	-	150	-	-	-	-	(150)	-	-	-	-	-	-	-	-
Transfer to Special Reserve		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transactions with owners in their capacity as owners																				
Issue of Equity Share Capital		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*	*
Share Application Money Received during the year		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shares Acquired by the Trust		-	-	-	-	-	-	-	(7)	-	-	-	-	-	-	-	-	(7)	-	(7)
Employee Share Based Transactions		-	-	-	-	12	-	(5)	-	-	-	-	-	-	-	-	-	7	-	7
Employee Share Options Expenses		-	-	-	-	-	-	28	-	-	-	-	-	-	-	-	-	28	-	28
Employee Share Options Lapsed/Forfeited		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dividend Paid		-	-	-	-	-	-	-	-	-	-	(267)	-	-	-	-	-	(267)	-	(267)
Dividend Distribution Tax		-	-	-	-	-	-	-	-	-	-	(55)	-	-	-	-	-	(55)	-	(55)
Change in Ownership Interest in Subsidiaries		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Changes		-	-	-	-	-	-	-	-	-	-	-	-	-	(2)	-	-	(2)	-	(2)
Balance as at March 31, 2020	17	**4**	**147**	**104**	**5,799**	**8,218**	**1,200**	**44**	**(130)**	**19**	**21,370**	**18,806**	**325**	**7**	**(130)**	**119**	**2,193**	**58,095**	**10**	**58,105**
Profit/ (Loss) for the year		-	-	-	-	-	-	-	-	-	-	3,483	-	-	-	-	-	3,483	-	3,483
Other Comprehensive Income/(Loss) for the year		-	-	-	-	-	-	-	-	-	-	860	4,348	(6)	(1,268)	(109)	959	4,784	-	4,784
Total Comprehensive Income/(Loss) for the year		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4,343**	**4,348**	**(6)**	**(1,268)**	**(109)**	**959**	**8,267**	**-**	**8,267**
Hedging (gain)/ loss and cost of hedging transferred to non-financial assets		-	-	-	-	-	-	-	-	-	-	-	-	-	142	-	-	142	-	142
Transfer to Debenture Redemption Reserve		-	-	-	-	-	150	-	-	-	-	(150)	-	-	-	-	-	-	-	-
Transfer to Special Reserve		-	-	-	-	-	-	-	-	1	-	(1)	-	-	-	-	-	-	-	-
Transactions with owners in their capacity as owners																				
Issue of Equity Share Capital		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Share Application Money Received during the year		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Share in Equity Accounted Investments		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shares Acquired by the Trust		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Employee Share Based Transactions		-	-	-	-	7	-	(4)	1	-	-	-	-	-	-	-	-	4	-	4
Employee Share Options Expenses		-	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-	15	-	15
Employee Share Options Lapsed/Forfeited		-	-	-	-	-	-	(1)	-	-	-	1	-	-	-	-	-	-	-	-
Dividend Paid		-	-	-	-	-	-	-	-	-	-	(222)	-	-	-	-	-	(222)	-	(222)
Change in Ownership Interest in Subsidiaries		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Changes		-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	10	-	10
Balance as at March 31, 2021	17	**4**	**147**	**104**	**5,799**	**8,225**	**1,350**	**54**	**(129)**	**20**	**21,370**	**22,777**	**4,673**	**1**	**(1,246)**	**10**	**3,152**	**66,311**	**10**	**66,321**
Basis of Preparation and Significant Accounting Policies	1																			

* represents amount below rounding off convention.

The accompanying Notes are an integral part of the Consolidated Financial Statements

This is the Consolidated Statement of Changes in Equity referred in our report of even date

As per our report annexed.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

For and on behalf of the Board of Hindalco Industries Limited

Sumit Seth
Partner
Membership No. 105869

Praveen Kumar Maheshwari
Whole-time Director &
Chief Financial Officer
DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Anil Malik
Company Secretary

K N Bhandari
Director
DIN- 00026078

Place : Mumbai
Date : May 21, 2021

CONSOLIDATED STATEMENT OF CASH FLOWS

for the year ended March 31, 2021

(₹ in Crore)

	Note	Year ended 31/03/2021	Year ended 31/03/2020
A. CASH FLOW FROM OPERATING ACTIVITIES			
Profit/ (Loss) before Tax from Continuing Operations		7,905	5,924
Adjustment for :			
Finance Cost	32	3,738	4,197
Depreciation and Amortization Expense	33	6,628	5,091
Impairment Loss/ (Reversal) of Non-Current Assets (Net)	34	138	109
Impairment Loss/ (Reversal) on Financial Assets (Net)	35	(26)	22
Non-Cash Employee Share-Based payments	30	15	28
Share in (Profit)/ Loss in Equity Accounted Investments (Net of Tax)	48	(5)	(4)
Unrealised Foreign Exchange (Gain)/ Loss (Net)		(37)	47
Unrealised (Gain)/ Loss on Derivative Transactions (Net)		487	(182)
Fair Value (Gain)/ Loss on Modification of Borrowings (Net)		(117)	(20)
(Gain)/ Loss on Property, Plant and Equipment and Intangible Assets Sold/ Discarded (Net)	26	35	7
Interest Income	26	(181)	(289)
Dividend Income	26	(25)	(35)
(Gains)/ Losses on Investments measured at Fair Value through Profit and Loss (Net)	26	(543)	(456)
Exceptional Income		(127)	(25)
Changes in Cash Flow Hedges net of reclassification from OCI		(121)	(412)
Other Non-operating (Income)/ Expenses (Net)		-	(57)
Operating Profit before Working Capital Changes		17,764	13,945
Changes in Working Capital:			
(Increase)/ Decrease in Inventories (Net)		(4,640)	(347)
(Increase)/ Decrease in Trade Receivables		(2,001)	2,424
(Increase)/ Decrease in Other Financial Assets		346	(365)
(Increase)/ Decrease in Non-Current Assets		399	(78)
Increase/ (Decrease) in Trade Payables		7,314	(2,523)
Increase/ (Decrease) in Other Financial Liabilities		(289)	342
Increase/ (Decrease) in Non-Current Liabilities (incl. contract liabilities)		275	(551)
Cash Generated from Operation before Tax		19,168	12,847
Refund/ (Payment) of Income Tax (Net)		(1,256)	(102)
Net Cash Generated/ (Used) - Operating Activities - Continuing Operations		17,912	12,745
Net Cash Generated/ (Used) - Operating Activities - Discontinued Operations		(680)	-
Net Cash Generated/ (Used) - Operating Activities		17,232	12,745
B. CASH FLOW FROM INVESTMENT ACTIVITIES			
Payments to acquire Property, Plant and Equipment, Intangible Assets and Investment Property		(5,565)	(6,917)
Proceeds from disposal of Property, Plant and Equipment, Intangible Assets and Investment Property		48	59
Sale proceeds from Slump Sale		-	25
Acquisition of business, net of cash acquired		(19,524)	-
Investment in equity accounted investees		-	(3)
Investment in Equity Shares at FVTOCI		(43)	(653)
(Purchase)/ Sale of Other Investments (Net)		(2,775)	(1,578)
Loans and Deposits given		(266)	(55)
Receipt of Loans and Deposits given		5	321
Interest Received		203	283
Dividend Received		25	48
Receipts of government grants		-	33
Lease payments received from finance lease		10	10
Net Cash Generated/ (Used) - Investing Activities - Continuing Operations		(27,882)	(8,427)
Net Cash Generated/ (Used) - Investing Activities - Discontinued Operations		2,245	-
Net Cash Generated/ (Used) - Investing Activities		(25,637)	(8,427)

(₹ in Crore)

	Note	Year ended 31/03/2021	Year ended 31/03/2020
C. CASH FLOW FROM FINANCING ACTIVITIES			
Proceeds from issue of Equity Shares (Including Share Application Money)		5	7
Treasury Shares acquired by ESOP Trust		-	(7)
Redemption of Debentures		(3)	(3)
Proceeds from Borrowings		22,739	15,537
Repayment of Borrowings		(17,047)	(8,308)
Principal Payments of Lease Liabilities		(331)	(334)
Proceeds from/ (Repayment) of Current Borrowings (Net)		(6,584)	4,054
Increase/ (Decrease) in Supplier's Credit (Net)		255	-
Finance Cost Paid		(3,678)	(3,970)
Dividend Paid (including Dividend Distribution Tax)		(222)	(320)
Net Cash Generated/ (Used) - Financing Activities - Continuing Operations		(4,866)	6,656
Net Cash Generated/ (Used) - Financing Activities - Discontinued Operations		(16)	-
Net Cash Generated/ (Used) - Financing Activities		(4,882)	6,656
Net Increase/ (Decrease) in Cash and Cash Equivalents		(13,287)	10,974
Add : Opening Cash and Cash Equivalents		21,269	9,095
Add : Effect of exchange variation on Cash and Cash Equivalents		357	1,200
Closing Cash and Cash Equivalents		8,339	21,269
Reconciliation of Closing Cash and Cash Equivalents with Balance Sheet:			
Cash and Cash Equivalents as per Balance Sheet	13	8,339	21,303
Less: Fair Value adjustments in Liquid Investments		-	(6)
Less: Temporary Overdraft Balance in Current Accounts		-	(28)
Cash and Cash Equivalents as per Cash Flow Statement		8,339	21,269
Supplemental Information			
(i) Non Cash Transactions from Investing and Financing Activities:			
Acquisition of Right of Use Assets		451	447
(ii) Capitalised interest paid included in Investing activities		151	102
Basis of Preparation and Significant Accounting Policies	1		

The accompanying Notes are an integral part of the Consolidated Financial Statements

This is the Consolidated Statement of Cash Flows referred in our report of even date

As per our report annexed.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sumit Seth
Partner
Membership No. 105869

For and on behalf of the Board of Hindalco Industries Limited

Praveen Kumar Maheshwari
Whole-time Director &
Chief Financial Officer
DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Anil Malik
Company Secretary

K N Bhandari
Director
DIN- 00026078

Place : Mumbai
Date : May 21, 2021

NOTES FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS

Company Overview

Hindalco Industries Limited ("the Company/ Parent") was incorporated in India in the year 1958 having its registered office at Ahura Centre, 1st Floor, B Wing, Mahakali Caves Road, Andheri (East), Mumbai - 400093.

The Company has two main stream of business Aluminium and Copper.

In Aluminium, the Company caters to the entire value chain starting from mining of bauxite and coal through production of value added products for various application.

The Company along with its subsidiaries has manufacturing operations in ten countries including India spread over four continents North America, South America, Asia and Europe. Apart from primary aluminium, the Company produces aluminium sheet, extrusion and light gauge products for use in packaging market which includes beverage and food, can and foil products as well as for use in automotive, electronics, architecture, transportation and industrial product markets.

The Company also has one of the largest single location Copper smelting facility in India.

The equity shares of the Company are listed on National Stock Exchange of India Limited (NSE) and BSE Limited (BSE) and GDRs are listed on the Luxemburg Stock Exchange.

1. Basis of Preparation and Significant Accounting Policies

1A. Basis of Preparation

The Consolidated Financial Statements ("the financial statements") relate to the Company and its subsidiaries (collectively "the Group") and certain unstructured entities consolidated by the Group and its interest in associates and joint ventures. The consolidated financial statements comply in all material aspects with Indian Accounting Standards ("Ind-AS") as prescribed under section 133 of the Companies Act 2013 ("the Act"), as notified under the Companies (Indian Accounting Standards) Rules, 2015, (including subsequent amendments) and other accounting principles generally accepted in India.

The Group's consolidated financial statements for the year ended March 31, 2021 have been approved for issue by the Board of Directors of the Company in their meeting held on May 21, 2021.

The financial statements have been prepared under the historical cost convention on accrual basis except for following assets and liabilities which have been measured at fair value:

- Certain financial instruments - measured at fair value;
- Assets held for sale - measured at fair value less cost to sell;
- Plan assets under defined benefit plans - measured at fair value;
- Liabilities for Cash settled share-based payments; and
- Inventories those are designated in a Fair value hedge relationship where both the derivative and inventory are fair valued.

In addition, the carrying values of recognised assets and liabilities designated as hedged items in fair value hedges that would otherwise be carried at cost are adjusted to record changes in the fair values attributable to the risks that are being hedged in effective hedge relationship.

Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Group take into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Fair value for measurement and/ or disclosure purposes in the financial statements is determined on such a basis, except for employee share-based payment, leasing transactions and measurements that have some similarities to fair value but are not fair value, such as net realisable value in Inventories or value in use in Impairment of Assets. The basis of fair valuation of these items are given as part of their respective accounting policies.

The Group has determined current and non-current classification of its assets and liabilities in the financial statements as per the requirement of Ind AS 1 - 'Presentation of Financial Statements'. Based on its assessment, the Group has ascertained its normal operating cycle as 12 months for the purpose of current and non-current classification of its assets and liabilities.

In addition, for financial reporting purposes, fair value measurements are categorised into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the Group can access at the measurement date;
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

The Consolidated Financial Statements are presented in Indian Rupees (INR/₹) which is also the Parent's Functional Currency. All financial information presented in INR has been rounded off to nearest Crore Rupees (INR 1 Crore = INR 10,000,000) without any decimal, unless otherwise stated.

1B. Significant Accounting Policies:

A. Principles of Consolidation

Subsidiaries

Subsidiaries are the entities (including structured and unstructured entities) over which the Group has control. The Group controls an entity when the group is exposed to or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the relevant activities of the entity. Consolidation of subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Assets, liabilities, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated financial statements from the date the Group gains the control until the date the Group ceases to control the subsidiary.

The Group combines the financial statements of the parent and its subsidiaries line by line adding together like items of assets, liabilities, equity, income and expenses. Intra-group transactions, balances and unrealised profits on transactions between group companies are eliminated in full. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the transferred assets. Appropriate adjustments for deferred taxes are made for temporary differences that arise from the elimination of unrealised profits and losses from intra-group transactions or undistributed earnings of Group's entity included in consolidated profit and loss, if any.

The consolidated financial statements are prepared using uniform accounting policies for like transactions and other events in similar circumstances. If any entity within the Group uses accounting policies other than those adopted in the consolidated financial statements for like transactions and events in similar circumstances, appropriate adjustments are made to that group entity's financial statements to ensure conformity with the Group's accounting policies. The financial statements of all entities used for the purpose of consolidation are drawn up to the same reporting date as that of the parent company. When the end of the reporting period of the parent is different from that of a subsidiary, the subsidiary prepares additional financial information as of the same date as the financial statements of the parent to enable the parent to consolidate the financial information of the subsidiary, unless it is impractical to do so.

Non-controlling interest in the profit / loss and equity of the subsidiaries are shown separately in the consolidated statement of profit and loss and the consolidated balance sheet, respectively.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction. This results in an adjustment between the carrying amounts of the controlling and non-controlling interests to reflect their relative interests in the subsidiary. Any difference between the amount of the adjustment to non-controlling interests and any consideration paid or received is recognised within equity attributable to owners of the parent.

In case the Group ceases to consolidate a subsidiary because of a loss of control, any retained interest in the entity is re-measured to its fair value. This fair value becomes the initial carrying amount for the purpose of subsequently accounting for the retained interest as an associate, joint venture or financial assets. When the Group loses control over a subsidiary, it derecognises the assets, including goodwill, and liabilities of the subsidiary, carrying amount of any non-controlling interests, cumulative translation differences recorded in equity and recognise resulting difference between the fair value of the investment retained and the consideration received and total of amount derecognised as gain or loss attributable to the Parent. In addition, amounts, if any, previously recognised in other comprehensive income in relation to that entity are reclassified to profit or loss as would be required if the parent had directly disposed of the related assets or liabilities.

Interest in Associates and Joint Ventures

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies, generally accompanying a shareholding between 20% and 50% of the voting rights.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

The Group's interest in its associates or joint ventures are accounted for using the equity method from the date on which the investee becomes an associate or a joint venture. Under equity method, the investment in an associate or a joint venture is initially recognised at cost and adjusted thereafter to recognise the changes in the Group's share of net assets of the associate or joint venture since the acquisition date. Dividends received or receivable from associates and joint ventures are recognised as a reduction in the carrying amount of the investment. On acquisition of the investment in an associate or a joint venture, any excess of the cost of the investment over the Group's share of the net fair value of the identifiable assets and liabilities of the investee is recognised as Goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets and liabilities over the cost of the investment is recognised in equity as Capital Reserve in the period in which the investment is acquired.

The consolidated statement of profit and loss reflects the Group's share of the results of operations of the associate or joint venture. Any change in other comprehensive income (OCI) is presented as part of the Group's OCI. In addition, when there has been a change recognised directly in the equity of the associate or joint venture, the Group recognises its share of that changes, when applicable, in the consolidated statement of changes in equity. Unrealised gains or losses resulting from transactions between the Group and the associate or joint venture are eliminated to the extent of the interest in the associate or joint venture.

When the Group's share of losses of an associate or a joint venture equals or exceeds its interest in that associate or joint venture (which includes any long-term interests that, in substance, form part of the Group's net investment in the associate or joint venture), the Group discontinues recognising its share of further losses. Additional losses are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate or joint venture. If the associate or joint venture subsequently reports profits, the group resumes recognising its share of those profits only after its share of the profit equals the share of losses not recognised.

At each reporting date, the Group determines whether there is objective evidence that the investment in the associate or joint venture is impaired. If there is such evidence, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate or joint venture and its carrying value, and then recognises the impairment loss in the consolidated statement of profit and loss. Any reversal of that impairment loss is recognised to the extent that the recoverable amount of the investment subsequently increases. Goodwill relating to associate or joint venture is included in the carrying amount of the investment and is not separately tested for impairment.

The Group continues to use the equity method when an investment in an associate becomes an investment in a joint venture or an investment in a joint venture becomes an investment in an associate.

If ownership interest in an associate or a joint venture is reduced but significant influence or joint control is retained, the Group continues to use the equity method, and only proportionate share of the amount previously recognised in other comprehensive income are reclassified to consolidated statement of profit and loss where appropriate.

When the Group classified its investments, or a portion thereof, in associate or joint venture as held for sale, it discontinues the use of the equity method in relation to the portion that is classified as held for sale. Any retained portion of an investment in an associate or a joint venture that has not been classified as held for sale continues to be accounted for using the equity method. The Group discontinues the use of the equity method at the time of disposal when the disposal results in the Group losing significant influence over the associate or joint venture.

Upon loss of significant influence over the associate or joint venture, the group measures and recognises any retained investment at its fair value. Any difference between the carrying amount of the associate or joint venture and the fair value of retained investment and proceeds from disposal is recognised in the consolidated statement of profit and loss.

See Note 48 - Interest in Other Entities for further details.

B. Business Combination

Business combinations are accounted for using the acquisition method. The consideration transferred in a business combination comprises the fair values of the assets transferred, liabilities incurred to the former owners of the acquired business, equity interests issued by the Group and fair value of any assets or liability resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred.

At the acquisition date, the identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured at their acquisition date fair values. However, certain assets and liabilities i.e. deferred tax assets or liabilities, assets or liabilities related to employee benefit arrangements, liabilities or equity instruments related to share-based payment arrangements, lease liabilities under Ind AS 116 and assets or disposal groups that are classified as held for sale, acquired or assumed in a business combination are measured as per the applicable Ind-AS.

The Group recognises any non-controlling interest in the acquired entity on an acquisition-by-acquisition basis either at fair value or at the non-controlling interest's proportionate share of the acquired entity's net identifiable assets.

The excess of the sum of the consideration transferred the amount of any non-controlling interests in the acquired entity and the acquisition-date fair value of any previous equity interest in the acquired entity over the acquisition-date fair value of the net identifiable assets acquired is recognised as goodwill. Any gain on a bargain purchase is recognised is in other comprehensive income and accumulated in equity as Capital Reserve if there exists clear evidence of the underlying reasons for classifying the business combination as resulting in a bargain purchase, otherwise the gain is recognised directly in equity as Capital Reserve.

Where settlement of any part of cash consideration is deferred, the amounts payable in future are discounted to their present value as at the date of exchange. The discount rate used is entity's incremental borrowing rate, being the rate at which similar borrowing could be obtained from an independent financier under comparable terms and conditions.

Any contingent consideration is measured at fair value at the date of acquisition. If an obligation to pay contingent consideration that meets the definition of a financial instrument is classified as equity, then it is not re-measured subsequently and settlement is accounted for within equity. Other contingent consideration is re-measured at fair value at each reporting date and changes in the fair value of contingent consideration are recognised in profit or loss.

When a business combination is achieved in stages, any previously held equity interest in the acquiree is re-measured at its acquisition-date fair value and the resulting gain or loss, if any, is recognised in the consolidated statement of profit and loss or other comprehensive income, as appropriate.

Where it is not possible to complete the determination of fair values by the end of the reporting period in which the combination occurs, a provisional assessment of fair values is made and any adjustments required to those provisional values, and the corresponding adjustments to goodwill, are finalised within 12 months of the acquisition date.

See Note 49 - Business Combination for further details.

C. Interest in Joint Operations

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

When a Group entity undertakes its activities under joint operations, the Group as a joint operator recognises in relation to its interest in a joint operation:

- its assets, including its share of any assets held jointly;
- its liabilities, including its share of any liabilities incurred jointly;
- its revenue from the sale of its share of the output arising from the joint operation;
- its share of the revenue from the sale of the output by the joint operation; and
- its expenses, including its share of any expenses incurred jointly.

The Group accounts for the assets, liabilities, revenues and expenses relating to its interest in a joint operation in accordance with the standard applicable to the particular assets, liabilities, revenues and expenses.

When a Group entity transacts with a joint operation in which a group entity is a joint operator (such as a sale or contribution of assets), the Group is considered to be conducting the transaction with the other parties to the joint operation, and gains and losses resulting from the transactions are recognised in the financial statements only to the extent of other parties' interests in the joint operation.

When a group entity transacts with a joint operation in which a group entity is a joint operator (such as a purchase of assets), the Group does not recognise its share of the gains and losses until it resells those assets to a third party.

See Note 48 - Interest in Other Entities for further details.

D. Property, Plant and Equipment

Property, plant and equipment held for use in the production or/and supply of goods or services, or for administrative purposes, are stated in the consolidated balance sheet at cost, less any subsequent accumulated depreciation and subsequent accumulated impairment losses.

The initial cost at cash price equivalent of property, plant and equipment acquired comprises its purchase price, including import duties and non-refundable purchase taxes, any directly attributable costs of bringing the assets to its working condition and location and present value of any obligatory decommissioning costs for its intended use. Cost may also include effective portion on qualifying cash flow hedges of foreign currency purchases of property, plant and equipment recycled from hedge reserve as basis adjustment.

In case of self-constructed assets, cost includes the costs of all materials used in construction, direct labour, allocation of overheads, directly attributable borrowing costs and effective portion of cash flow hedges of foreign currency transferred from the hedge reserve as basis adjustment.

Subsequent expenditure on major maintenance or repairs includes the cost of the replacement of parts of assets and overhaul costs. Where an asset or part of an asset is replaced and it is probable that future economic benefits associated with the item will be available to the Group, the expenditure is capitalised and the carrying amount of the item replaced is derecognised. Similarly, overhaul costs associated with major maintenance which can be measured reliably are capitalised and depreciated over their useful lives where it is probable that future economic benefits will be available and any remaining carrying amounts of the cost of previous overhauls are derecognised. All other costs are charged to profit and loss during the reporting period in which they are incurred.

Capital work-in-progress

Capital work-in-progress comprise of tangible items in the course of construction for production or/and supply of goods or services or administrative purposes are carried at cost, less any accumulated impairment loss. At the point when an asset is capable of operating at management's intended use, the cost of construction is transferred to the appropriate category of property, plant and equipment. Costs associated with the commissioning of an asset are capitalised.

Depreciation

Depreciation is charged so as to write off the cost or value of assets, over their estimated useful lives. Depreciation is recorded using the straight line basis. The estimated useful lives and residual values are reviewed at each year end, with the effect of any changes in estimate accounted for on a prospective basis. Each component of an item of property, plant and equipment with a cost that is significant in relation to the total cost of that item is depreciated separately if its useful life differs from the others components of the asset.

Depreciation commences when the assets are ready for their intended use. Depreciated assets in property and accumulated depreciation accounts are retained fully until they are removed/retired from active use.

Leasehold improvements are depreciated over the shorter of their useful life or the lease term, unless the entity expects to use the assets beyond the lease term.

The useful life of the items of Property, Plant and Equipment estimated by the management for the current and comparative period are in line with the useful life as per Schedule II of the Companies Act, 2013. (refer Note 2).

Disposal of assets

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on the disposal or retirement of an item of property, plant and equipment is determined as the difference between net disposal proceeds and the carrying amount of the asset and is recognised in the consolidated statement of profit and loss.

See Note 2A - Property, Plant and Equipment and Capital Work-in-Progress for further details.

See Note 33 - Depreciation and Amortization for further details.

E. Investment Property

Investment properties held to earn rentals or for capital appreciation or both are stated in the consolidated balance sheet at cost, less any subsequent accumulated depreciation and subsequent accumulated impairment losses. Depreciation is charged on a straight line basis over their estimated useful lives. Any gain or loss on disposal of investment property is determined as the difference between net disposal proceeds and the carrying amount of the property and is recognised in the consolidated statement of profit and loss. Transfer to, or from, investment property is at the carrying amount of the property.

See Note 3 - Investment Property for further details.

See Note 33 - Depreciation and Amortization for further details.

F. Intangible Assets (Other than goodwill)

Intangible assets acquired separately

Intangible assets acquired are reported at cost less accumulated amortization and accumulated impairment losses. Amortization is charged on a straight line basis over their estimated useful lives other than Mining Rights. The estimated useful life and amortization method are reviewed at the end of each annual reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

Internally-generated intangible assets

Expenditure on research activities is recognized as an expense in the period in which it is incurred.

An internally-generated intangible asset arising from development (or from the development phase of an internal project) is recognized if, and only if all of the following have been demonstrated:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- management's intention to complete the intangible asset and use or sell it;
- the ability to use or sell the intangible asset;
- how the intangible asset will generate probable future economic benefits;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- the ability to measure reliably the expenditure attributable to the intangible asset during its development.

The amount initially recognized for internally-generated intangible assets is the sum of the expenditure incurred from the date when the intangible asset is recognised. Where no internally-generated intangible asset can be recognized, development expenditure is charged to the consolidated statement of profit and loss in the period in which it is incurred.

Subsequent to initial recognition, internally-generated intangible assets are reported at cost less accumulated amortization and accumulated impairment losses, on the same basis as intangible assets acquired separately.

Intangible assets acquired in a business combination

Identified intangible assets acquired in a business combination and recognised separately from goodwill are initially recognised at their fair values at the acquisition date.

Subsequent to initial recognition, intangible assets acquired in a business combination are reported at cost less accumulated amortization and accumulated impairment losses, on the same basis as intangible assets acquired separately.

Mining Reserves, Resources and Rights (Mining Rights)

Mineral reserves, resources and rights (together referred to as 'mining rights') which can be reasonably valued, are recognised in the assessment of fair values on acquisition. Exploitable mineral rights are amortised using the unit of production basis over the commercially recoverable reserves. Mineral resources are included in amortisation calculations where there is a high degree of confidence that they will be extracted in an economic manner. Commercially recoverable reserves are proved and probable reserves. Changes in the commercial recoverable reserves affecting unit of production calculations are dealt with prospectively over the revised remaining reserves.

Exploration for and evaluation of mineral resources

Expenditures associated with exploration for and evaluation of mineral resources after obtaining of legal rights to explore a specific area but before technical feasibility and commercial viability of extracting mineral resources are demonstrable are recognized as Exploration and Evaluation assets.

If a project does not prove viable, all irrecoverable exploration and evaluation expenditure associated with the project net of any related impairment allowances is written off to the consolidated statement of profit and loss.

The Group measure its Exploration and Evaluation assets at cost and classifies it as Property, Plant and Equipment or Intangible Assets according to the nature of assets acquired and applies the classification consistently.

As the assets is not available for use, it is not depreciated but are monitored for indication of impairment. An exploration and evaluation asset is no longer classified as such when the technical feasibility and commercial viability of extracting minerals resources are demonstrable and the development of the deposit is intended by the management. The carrying value of such exploration and evaluation asset is reclassified as Mining Rights.

Derecognition of intangible assets

An intangible asset is derecognised on disposal, or when no future economic benefits are expected from use or disposal. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset are recognised in the consolidated statement of profit and loss when the asset is derecognised.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment annually, and whenever there is an indication that the asset may be impaired.

See Note 5 - Other Intangible Assets and Intangible Assets under Development for further details.

See Note 33 - Depreciation and Amortization for further details.

G. Stripping cost

Stripping costs incurred during the mining production phase are allocated between cost of inventory produced and the existing mine asset. The stripping ratio, as approved by the regulatory authority, for the life of the mine is obtained by dividing the estimated quantity of overburden by the estimated quantity of mineable coal / bauxite reserve to be extracted over the life of the mine. This ratio is periodically reviewed and changes, if any, are accounted for prospectively.

Stripping costs are allocated and included as a component of the mine asset when they represent significantly improved access to ore, provided all the following conditions are met:

- it is probable that the future economic benefit associated with the stripping activity will be realised;

- the component of the ore body for which access has been improved can be identified; and
- the costs relating to the stripping activity associated with the improved access can be reliably measured.

The overburden removal costs are included in Mining Rights under Intangible assets and amortised based on stripping ratio on the quantity of coal / bauxite excavated.

See Note 5 - Other Intangible Assets and Intangible Assets under Development for further details.

See Note 33 - Depreciation and Amortization for further details.

H. Non-Current assets (or disposal groups) held for sale

Non-Current assets and disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the asset (or disposal group) is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such asset (or disposal group) and its sale is highly probable. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

Non-Current assets (and disposal groups) classified as held for sale are measured at the lower of their carrying amount and fair value less costs to sell except for those assets that are specifically exempt under relevant Ind AS. Once the assets are classified as "Held for sale", those are not subjected to depreciation till disposal.

An impairment loss is recognised for any initial or subsequent write-down of the asset (or disposal group) to fair value less costs to sell. A gain is recognised for any subsequent increases in fair value less costs to sell of an asset (or disposal group), but not in excess of any cumulative impairment loss previously recognised.

A gain or loss not previously recognised by the date of the sale of the non-current asset (or disposal group) is recognised at the date of derecognition.

Non-current assets classified as held for sale and the assets of a disposal group classified as held for sale are presented separately from the other assets in the balance sheet.

Discontinued Operations

A discontinued operation is a component of an entity that either has been disposed of, or is classified as held for sale and that represents a separate line of business or geographical area of operations, is part of single coordinated plan to dispose of such a line of business or area of operations, or is a subsidiary acquired exclusively with a view to resale. The results of discontinued operations are presented separately in the consolidated statement of profit and loss.

See Note 15 - Non-Current Assets or Disposal Group Classified as Held For Sale for further details.

See Note 50 - Discontinued Operations for further details.

I. Goodwill

Goodwill arising on acquisition is carried at cost as established at the date of acquisition of the business less accumulated impairment losses, if any.

For the purpose of impairment testing, goodwill is allocated to each of the Group's cash-generating units expected to benefit from the synergies of the combination.

Cash-generating units to which goodwill has been allocated are tested for impairment annually, or more frequently when there is an indication that the unit may be impaired. If the recoverable amount of the cash-generating unit is less than the carrying amount of the unit, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro-rata on the basis of the carrying amount of each asset in the unit. An impairment loss recognised for goodwill is not reversed in a subsequent period.

On disposal of a subsidiary the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

The Group's policy for goodwill arising on the acquisition of an associate is described above.

See Note 4 - Goodwill for further details.

J. Impairment of Non-Current Assets (excluding Goodwill)

At the end of each reporting period, the Group reviews the carrying amounts of its tangible, intangible and other non-current assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset/ cash-generating unit is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. Recoverable amount is the higher of fair value less cost to sell and Value in use. Where a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual cash-generating units, or otherwise they are allocated to the group of cash-generating units for which a reasonable and consistent allocation basis can be identified.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised immediately in the consolidated statement of profit and loss.

Non-current assets (other than Goodwill) that suffered an impairment are reviewed for possible reversal of the impairment at the end of each reporting period. Where an impairment loss subsequently reverses, the carrying amount of the asset (or cash-generating unit) is increased to the revised estimate of its recoverable amount, so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or cash-generating unit) in prior years. A reversal of an impairment loss is recognised immediately in the consolidated statement of profit and loss.

Refer accounting policy on "Goodwill" for impairment of goodwill.

See Note 34 - Impairment Loss/ (Reversal) of Non-Current Assets (Net) for further details.

K. Foreign Currency Transactions and Translation

Transactions in foreign currencies are recorded by the group entities at their respective functional currency at the exchange rates prevailing at the date of the transaction first qualifies for recognition. Monetary assets and liabilities denominated in foreign currency are translated to the functional currency at the exchange rates prevailing at the reporting date.

Exchange differences arising on settlement or translation of monetary items are recognised in the consolidated statement of profit and loss with the exception of the following:

- eligible exchange differences on foreign currency borrowings relating to qualifying assets under construction are included in the cost of those assets when they are regarded as an adjustment to interest costs;
- exchange differences on transactions entered into in order to hedge certain foreign currency risks (see below for hedge accounting policies); and
- exchange differences on monetary items receivable from or payable to a foreign operation for which settlement is neither planned nor likely to occur (therefore forming part of the net investment in the foreign operation), which are recognised initially in other comprehensive income and reclassified from equity to the consolidated statement of profit and loss on repayment of the monetary items.

Non-monetary items that are measured at historical cost in a foreign currency are translated using the exchange rates at the date of initial transactions. Non-monetary items measures at fair value in a foreign currency are translated using the exchange rates at the date when the fair value is determined. The gain or loss arising on translation of non-monetary items measured at fair value is treated in line with the recognition of gain or loss on change in fair value of the item (i.e. translation differences on items whose fair value gain or loss is recognised in OCI or profit or loss are also recognised in OCI or profit or loss, respectively).

For the purposes of presenting consolidated financial statements, the assets, liabilities and equity (except retained earnings) of foreign operations are translated into Indian Rupees at the rate of exchange prevailing at the reporting date and their income and expenses are translated at the exchange rates prevailing at the date of transactions. For practical reason, the Group uses an average rate to translate income and expense items, if the average rate approximates the exchange rates at the dates of the transactions. The exchange differences arising on translation for consolidation are recognised in other comprehensive income and accumulated in equity. Accumulated exchange differences arising from translation and attributable to non-controlling interests are allocated to, and recognised as part of, non-controlling interests in the consolidated balance sheet.

On the disposal of a foreign operation all of the exchange differences accumulated in OCI relating to that particular foreign operation attributable to the owners of the Group is reclassified in the consolidated statement of profit and loss.

In addition, in relation to a partial disposal of a subsidiary that includes a foreign operation that does not result in the Group losing control over the subsidiary, the proportionate share of accumulated exchange differences are re-attributed to non-controlling interests and are not recognised in the consolidated statement of profit and loss. For partial disposals of investment in associates or joint arrangements that do not result in the Group losing significant influence or joint control, the proportionate share of the accumulated exchange differences is reclassified in the consolidated statement of profit and loss.

Any goodwill and fair value adjustments arising in business combinations or acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the exchange rates prevailing at the reporting date and resulting exchange differences are recognised in other comprehensive income.

See Note 32 - Finance Cost, Note 36 - Other Expenses, Note 38 - Other Comprehensive Income/ (Loss) for further details.

L. Provisions and Contingencies

Provisions are recognized when there is a present obligation (legal or constructive) as a result of a past event and it is probable ("more likely than not") that it is required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the balance sheet date, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the estimated cash flows to settle the present obligation, its carrying amount is the present value of those cash flows. The discount rate used is a pre-tax rate that reflects current market assessments of the time value of money in that jurisdiction and the risks specific to the liability.

Onerous contracts

Present obligations arising under onerous contracts are recognised and measured as provisions. An onerous contract is considered to exist when a contract under which the unavoidable costs of meeting the obligations exceed the economic benefits expected to be received from it.

Restructurings

A restructuring provision is recognised when there is a detailed formal plan for the restructuring which has raised a valid expectation in those affected that the Company will carry out the restructuring by stating to implement the plan or announcing its main feature to those affected by it. The measurement of a restructuring provision includes only the direct expenditures arising from the restructuring which are both necessarily entailed by the restructuring and not associated with the ongoing activities of the Group.

Contingent liabilities acquired in a business combination

Contingent liabilities acquired in a business combination are initially measured at fair value at the acquisition date. At the end of subsequent reporting periods, such contingent liabilities are measured at the higher of the amount that would be recognised in accordance with Ind-AS 37 and the amount initially recognised less cumulative amortisation recognised in accordance with Ind AS 115 - Revenue from contracts with customers. This does not apply to financial guarantee contracts or otherwise to those contracts that are within the scope of Ind AS 109.

Restoration (including Mine closure), rehabilitation and decommissioning

Close-down and restoration costs are provided for in the accounting period when the obligation arising from the related disturbance occurs, based on the net present value of the estimated future costs of restoration to be incurred during the life of the mining operation and post closure. Provisions for close-down and restoration costs do not include any additional obligations which are expected to arise from future disturbance.

The initial close-down and restoration provision is capitalised. Subsequent movements in the close-down and restoration provisions for ongoing operations, including those resulting from new disturbance related to expansions or other activities qualifying for capitalisation, updated cost estimates, changes to the estimated lives of operations, changes to the timing of closure activities and revisions to discount rates are also capitalised within "Property, plant and equipment".

Environmental liabilities

Environment liabilities are recognised when the group becomes obliged, legally or constructively to rectify environmental damage or perform remediation work.

Litigation

Provision relating to legal, tax and other matters is recognised once it has been established that the group has a present obligation based on consideration of the information which becomes available up to the date on which the consolidated financial statements of the Group are approved and may in some cases entail seeking expert advice in making the determination on whether there is a present obligation.

Contingent Liabilities and Assets

A contingent liability is a possible obligation that arises from a past event, with the resolution of the contingency dependent on uncertain future events, or a present obligation where no outflow is probable. Material contingent liabilities are disclosed in the consolidated financial statements unless the possibility of an outflow of economic resources is remote. Contingent assets are not recognized in the consolidated financial statements unless it is virtually certain that the future event will confirm the asset's existence and the asset will be realised.

Enterprise Social Commitment

Enterprise Social Commitment is the amount to be spent on social and economic development of the surrounding area over a period of time where any new project is set up. Such obligation arises out of conditions mentioned in the Environment Clearance Certificate given by the Government for new projects and are generally defined as a percentage of total project cost. Present value of such future cash flows discounted at appropriate and applicable discount rates are capitalised against the obligation created. Actual cash flows that happen over the period are adjusted against the obligation. The obligation is increased over a period of time and the differential is recognized in the Statement of Profit and Loss as Interest Expense.

Renewable Power Obligation

Provision towards Renewable Power obligation is created to the extent any obligated unit is unable to source renewable energy as a replacement to carbon energy as per requirement of the applicable regulation during the reporting period and is carried in books till the obligation is discharged by purchasing Renewable Energy Certificate from any of the authorised exchanges.

See Note 22 - Provisions and Note 43 - Contingent Liabilities and Commitments for further details.

M. Leases

The Group as lessee

The Group assesses whether a contract is or contains a lease, at inception of the contract. The Group recognises a right-of-use asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low value assets. For these leases, the Group recognises the lease payments as an operating expense on a straight-line basis over the lease term, unless another systematic basis is more representative of the time pattern in which economic benefits from the leased assets are consumed. Contingent and variable rentals are recognized as expense in the periods in which they are incurred.

Lease Liability

The lease payments that are not paid at the commencement date are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, which is generally the case for leases in the Group, the lessee's incremental borrowing rate is used, being the rate that the individual lessee would have to pay to borrow the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment with similar terms, security and conditions.

To determine the incremental borrowing rate, the Group uses a build-up approach that starts with a risk-free interest rate adjusted for credit risk and makes adjustments specific to the lease, e.g. term, security etc.

Lease payments included in the measurement of the lease liability comprise:

- Fixed lease payments (including in-substance fixed payments) payable during the lease term and under reasonably certain extension options, less any lease incentives;
- Variable lease payments that depend on an index or rate, initially measured using the index or rate at the commencement date;
- The amount expected to be payable by the lessee under residual value guarantees;
- The exercise price of purchase options, if the lessee is reasonably certain to exercise the options; and
- Payments of penalties for terminating the lease, if the lease term reflects the exercise of an option to terminate the lease.

The lease liability is presented as a separate line in the consolidated Balance Sheet.

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

The Group remeasures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) to reflect any reassessment, lease modification or revised in-substance fixed lease payments.

Right of Use (ROU) Assets

The ROU assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement day and any initial direct costs. They are subsequently measured at cost less accumulated depreciation and impairment losses.

Whenever the Group incurs an obligation for costs to dismantle and remove a leased asset, restore the site on which it is located or restore the underlying asset to the condition required by the terms and conditions of the lease, a provision is recognised and measured under Ind AS 37- Provisions, Contingent Liabilities and Contingent Assets. The costs are included in the related right-of-use asset.

For the certain class of assets, the Group allocates lease or non-lease components on the basis of their relative stand-alone prices while assessing a contract at its inception or on reassessment.

The Group applies Ind AS 36 - Impairment of Assets to determine whether a right-of-use asset is impaired and accounts for any identified impairment loss as per its accounting policy on 'property, plant and equipment'.

Extension and termination options are included in many of the leases. In determining the lease term the management considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option.

ROU assets are depreciated over the shorter period of the lease term and useful life of the underlying asset. If the Group is reasonably certain to exercise a purchase option, the right-of-use asset is depreciated over the underlying asset's useful life. The depreciation starts at the commencement date of the lease.

Deferred tax on the deductible temporary difference and taxable temporary differences in respect of carrying value of right of use assets and lease liability and their respective tax bases are recognised separately.

Sale and Leaseback

When Group (seller-lessee) sells an asset to another entity (the buyer-lessor) and leases it back from the buyer lessor, the Group determines if the transaction qualifies as a sale under Ind AS 115 or whether the transaction is a collateralised borrowing.

A sale and leaseback qualifies as a sale if the buyer-lessor obtains control of the underlying asset. The Group measures a right-ofuse asset arising from the leaseback as the proportion of the previous carrying amount of the asset that relates to the right of use retained. The gain/ (loss) that the Group recognises is limited to the proportion of the total gain/ (loss) that relates to the rights transferred to the buyer-lessor.

Any difference between the sale consideration and the fair value of the asset is either a prepayment of lease payments (if the purchase price is below market terms) or an additional financing (if the purchase price is above market terms), and this is applied if the lease payments are not at market rates.

If the transfer does not qualify as a sale under Ind AS 115, the Group does not derecognise the transferred asset, and it accounts for the cash received as a financial liability.

The Group as lessor

The Group enters into lease arrangements as a lessor with respect to some of its investment properties and buildings.

Leases for which the Group is a lessor are classified as finance or operating leases. Whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, the contract is classified as finance lease. All other leases are classified as operating leases.

When the Group is an intermediate lessor, it accounts for the head lease and sublease as two separate contracts. The sublease is classified as finance or operating lease by reference to the right-of-use asset arising from the head lease.

Rental income from operating leases is recognised on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognised on a straight-line basis over the lease term.

Amounts due from lessees under finance leases are recognised as receivables at the amount of the Company's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Company's net investment outstanding in respect of the leases.

When a contract includes lease and non-lease components, the Groupapplies Ind AS 115, Revenue from Contracts with Customers to allocate the consideration under the contract to each component.

See Note 2 - Property, Plant and Equipment (including ROU Assets) and Capital Work-in-Progress and Note 36 - Other Expenses for further details.

N. Inventories

Inventories are stated at the lower of cost and net realizable value. The cost of finished goods and work in progress includes raw materials, direct labour, other direct costs and related production overheads. Costs of inventories include the transfer from equity any gains/ losses on qualifying cash flow hedges for purchases of raw materials.

Cost of raw material and traded goods comprises of Cost of purchases and also include all other costs incurred in bringing the inventories to their present location and condition and are net of rebates and discounts.

The Inventories are measured at Fair Value only in those cases where the Inventories are designated into a fair value hedge relationship.

Cost is determined using the weighted average cost basis. However, the same cost basis is applied to all inventories of a particular class. Inventories of stores and spare parts are valued at weighted average cost basis after providing for cost of obsolescence and other anticipated losses, wherever considered necessary.

Net realizable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale.

Materials and other supplies held for use in the production of inventories (finished goods, work-in-progress) are not written down below the cost if the finished products in which they will be used are expected to sell at or above cost.

See Note 11 - Inventories for further details.

O. Trade Receivable

Trade receivables are amounts due from customers for goods sold or services performed in the ordinary course of business. If receivable is expected to be collected within a period of 12 months or less from the reporting date (or in the normal operating cycle of the business if longer), they are classified as Current Assets otherwise as Non-Current Assets.

Trade receivables are measured at their transaction price on initial recognition, unless it contains a significant financing component or pricing adjustments embedded in the contract. Trade receivables are held with the objective of collecting the contractual cash flows and therefore are subsequently measured at amortised cost less loss allowance.

Trade receivables which are subject to a factoring arrangement without recourse are de-recognized from the consolidated balance sheet. Under this arrangement, the Group transfers relevant receivables to the factor in exchange for cash and does not retain late payment and credit risk.

Trade receivables which arise from contracts where the sale price is provisional and revenue model have the character of a commodity derivative are measured at fair value. The fair value is measured at forward rate and subsequent changes are recognised as Other Operating Revenue.

See Note 12 - Trade Receivables for further details.

P. Trade and Other Payables

These amounts represent liabilities for goods and services provided to the Company and are unpaid at the end of the financial year. The amounts are unsecured and usually paid within time limits as contracted. Trade and other payables are presented as current liabilities unless the payment is not due within 12 months after the reporting period.

They are recognised initially at their transactional value which represents the fair value and subsequently measured at amortised cost using the effective interest method wherever applicable.

See Note 20 - Trade Payables for further details.

Q. Financial Instruments

All financial assets are recognised on trade date when the purchase of a financial asset is under a contract whose term requires delivery of the financial asset within the timeframe established by the market concerned. Financial assets are initially measured at fair value, plus transaction costs, except for those financial assets which are classified as at fair value through profit or loss (FVTPL) at inception. All recognised financial assets are subsequently measured in their entirety at either amortised cost or fair value.

Classification of financial assets

Financial assets are classified as 'equity instrument' if it is a non-derivative and meets the definition of 'equity' for the issuer. All other non-derivative financial assets are 'debt instruments'.

Financial assets at amortised cost and the effective interest method

Debt instruments are measured at amortised cost if both of the following conditions are met:

- the asset is held within a business model whose objective is to hold assets in order to collect contractual cash flows; and
- the contractual terms of the instrument give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Debt instruments meeting these criteria are subsequently measured at amortised cost using the effective interest method less any impairment, with interest recognised on an effective yield basis in investment income.

The effective interest method is a method of calculating the amortised cost of a debt instrument and of allocating interest over the relevant period. The effective interest rate is the rate that exactly discounts the estimated future cash receipts (including all fees or points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the debt instrument, or (where appropriate) a shorter period, to the net carrying amount on initial recognition.

The Group may irrevocably elect at initial recognition to classify a debt instrument that meets the amortised cost criteria above as at FVTPL if that designation eliminates or significantly reduces an accounting mismatch had the financial asset been measured at amortised cost.

Financial assets at fair value through other comprehensive income (FVTOCI)

Debt instruments are measured at FVTOCI if both of the following conditions are met:

- the asset is held within a business model whose objective is to hold assets in order to collect contractual cash flows and selling assets; and

- the contractual terms of the instrument give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding

Debt instruments meeting these criteria are subsequently measured at fair value with any gains or losses arising on re-measurement recognised in other comprehensive income, except for impairment gains or losses, interest gain and foreign exchange gains or losses which are recognised in the Consolidated statement of profit and loss. Interest calculated using the effective interest method is recognised in the Consolidated statement of profit and loss as investment income. When the debt instrument is derecognised the cumulative gain or loss previously recognised in other comprehensive income is reclassified to the Consolidated statement of profit and loss as a reclassification adjustment.

At initial recognition, an irrevocable election is made (on an instrument-by-instrument basis) to designate investments in equity instruments (other than held for trading purpose) at FVTOCI.

A financial asset is held for trading if:

- it has been acquired principally for the purpose of selling it in the near term; or
- on initial recognition it is part of a portfolio of identified financial instruments that the Group manages together and has evidence of a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated in an effective hedge relationship as a hedging instrument or a financial guarantee.

Investments in equity instruments at FVTOCI are subsequently measured at fair value with gains and losses arising from changes in fair value recognised in other comprehensive income and accumulated in the 'Gain/ (Loss) on Equity Instruments FVTOCI'. Where the asset is disposed of, the cumulative gain or loss previously accumulated in the 'Gain/ (Loss) on Equity Instruments FVTOCI' is directly reclassified to retained earnings.

For equity instruments measured at fair value through other comprehensive income no impairments are recognised in the Consolidated statement of profit and loss.

Dividends on these investments in equity instruments are recognised in the Consolidated statement of profit and loss in investment income when the Group's right to receive the dividends is established, it is probable that the economic benefits associated with the dividend will flow to the entity; and the amount of the dividend can be measured reliably.

Financial assets at fair value through profit and loss (FVTPL)

Financial assets that do not meet the criteria of classifying as amortised cost or fair value through other comprehensive income described above, or that meet the criteria but the entity has chosen to designate as at FVTPL at initial recognition, are measured at FVTPL.

Investments in equity instruments are classified as at FVTPL, unless the Group designates an investment that is not held for trading at FVTOCI at initial recognition.

Financial assets at FVTPL are subsequently measured at fair value, with any gains or losses arising on re-measurement recognised in the Consolidated statement of profit and loss. Interest income from these financial assets is included in other income.

Dividend income on investments in equity instruments at FVTPL is recognised in the Consolidated statement of profit and loss in investment income when the Group's right to receive the dividends is established, it is probable that the economic benefits associated with the dividend will flow to the entity, and the amount of the dividend can be measured reliably.

Impairment of financial assets

On initial recognition of the financial assets, a loss allowance for expected credit loss is recognised for debt instruments at amortised cost and FVTOCI. For debt instruments that are measured at FVTOCI, the loss allowance is recognised in the Consolidated statement of profit and loss.

Expected credit losses of a financial instrument is measured in a way that reflects:

- an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes;
- the time value of money; and
- reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions.

At each reporting date, the Group assesses whether the credit risk on a financial instrument has increased significantly since initial recognition.

When making the assessment, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition and consider reasonable and supportable information, that is available without undue cost or effort, that is indicative of significant increases in credit risk since initial recognition.

If, at the reporting date, the credit risk on a financial instrument has not increased significantly since initial recognition, the Group measures the loss allowance for that financial instrument at an amount equal to 12-month expected credit losses. If, the credit risk on that financial instrument has increased significantly since initial recognition, the Group measures the loss allowance for a financial instrument at an amount equal to the lifetime expected credit losses.

For Trade Receivables and Contract Assets, the Group applies the simplified approach required by Ind AS 109, which requires expected life time losses to be recognized from initial recognition of the receivables.

The amount of expected credit losses (or reversal) that is required to adjust the loss allowance at the reporting date is recognised as an impairment gain or loss in the Consolidated statement of profit and loss.

De-recognition of financial assets

The Group derecognises a financial asset on trade date only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity or when it retains contractual rights to retain contractual cash flows from financial assets, but assumes a contractual obligation to pay the cash flows to one or more recipient. If the Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

On de-recognition of a financial asset other than in its entirety (e.g. when the Group retains an option to repurchase part of a transferred asset), the Group allocates the previous carrying amount of the financial asset between the part it continues to recognise under continuing involvement, and the part it no longer recognises on the basis of the relative fair values of those parts on the date of the transfer. The difference between the carrying amount allocated to the part that is no longer recognised and the sum of the consideration received for the part no longer recognised and any cumulative gain or loss allocated to it that had been recognised in other comprehensive income is recognised in the Consolidated statement of profit and loss. A cumulative gain or loss that had been recognised in other comprehensive income is allocated between the part that continues to be recognised and the part that is no longer recognised on the basis of the relative fair values of those parts.

Financial liabilities and equity instruments issued by the Group

Classification as debt or equity

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangement.

Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Group are recognised at the proceeds received, net of direct issue costs.

Compound instruments

The component parts of compound instruments (convertible instruments) issued by the Group are classified separately as financial liabilities and equity in accordance with the substance of the contractual arrangement. At the date of issue, the fair value of the liability component is estimated using the prevailing market interest rate for a similar non-convertible instrument. This amount is recorded as a liability on an amortised cost basis using the effective interest method until extinguished upon conversion or at the instrument's maturity date. The equity component is determined by deducting the amount of the liability component from the fair value of the compound instrument as a whole. This is recognised and included in equity, net of income tax effects, and is not subsequently re-measured.

Financial guarantee contract liabilities

Financial guarantee contract liabilities are initially measured at their fair values and, if not designated as at FVTPL, are subsequently measured at the higher of:

- the amount of loss allowance is determined by using expected credit loss model ; and
- the amount initially recognised less, where appropriate, cumulative amount of income recognised in accordance with the revenue recognition policies.

Financial liabilities

Financial liabilities are classified as either financial liabilities 'at FVTPL' or 'other financial liabilities'.

Financial liabilities at FVTPL

Financial liabilities are classified as at FVTPL when the financial liability is either held for trading or it is designated as at FVTPL.

A financial liability is classified as held for trading if:

- it has been acquired or incurred principally for the purpose of repurchasing it in the near term; or
- on initial recognition it is part of a portfolio of identified financial instruments that the Group manages together and for which there is evidence of a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

A financial liability other than a financial liability held for trading may also be designated as at FVTPL upon initial recognition if:

- such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise; or
- the financial liability forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Group's documented risk management or investment strategy, and information about the Group is provided internally on that basis; or
- it forms part of a contract containing one or more embedded derivatives, and Ind-AS 109 Financial Instruments permits the entire combined contract to be designated as at FVTPL.

Financial liabilities at FVTPL are stated at fair value, with any gains or losses arising on re-measurement recognised in the Consolidated statement of profit and loss, except for the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability which is recognised in other comprehensive income.

The net gain or loss recognised in the Consolidated statement of profit and loss incorporates any interest paid on the financial liability.

Other financial liabilities

Other financial liabilities, including borrowings, are initially measured at fair value, net of transaction costs.

Other financial liabilities are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis.

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or (where appropriate) a shorter period, to the net carrying amount on initial recognition.

Offsetting financial instruments

Financial assets and liabilities are offset and the net amount reported in the Consolidated balance sheet when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the Group or the counterparty.

See Note 45 - Financial Instruments, Note 47 - Offsetting, Note 26 - Other Income and Note 35 - Impairment Loss/ (Reversal) on Financial Assets (Net) for further details.

R. Derivatives and Hedge Accounting

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently re-measured at their fair value at the end of each reporting date. The method of recognising the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged.

The Group designates certain derivatives as either:

- hedges of the fair value of recognised assets or liabilities or a firm commitment (fair value hedge);
- hedges of a particular risk associated with the cash flow of recognised assets or liabilities or a highly probable forecast transaction (cash flow hedge); or

The Group documents at the inception of the transaction the relationship between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking various hedging transactions. The Group also documents the nature of the risk being hedged and how the Group will assess whether the hedging relationship meets the hedge effectiveness requirements (including its analysis of the sources of hedge ineffectiveness and how it determines the hedge ratio).

Change in Fair value of derivatives that are not designated in any hedge relationship as mentioned above are accounted through the Consolidated Statement of Profit and Loss at each reporting date.

The Group also identifies embedded derivatives in certain transactions. These derivatives are generally segregated from the host transactions and accounted for separately. These derivatives are designated into a hedge relationship if they meet hedge accounting criteria. Change in fair value of such embedded derivatives are accounted in Other Comprehensive Income if they are designated in a cash flow hedge relationship. Fair Value change of all other embedded derivatives including those that are not designated in any hedge relationship are accounted through the Consolidated Statement of Profit and Loss.

The full fair value of a hedging derivative is classified as a Non-Current asset or liability when the residual maturity of the derivative is more than 12 months and as a current asset or liability when the residual maturity of the derivative is less than 12 months.

Fair value hedge

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in the Consolidated statement of profit and loss, together with any changes in the fair value of the hedged item that are attributable to the hedged risk.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated, or exercised, or when it no longer qualifies for hedge accounting. The fair value adjustment to the carrying amount of the hedged item arising from the hedged risk is amortised to the Consolidated Statement of Profit and Loss from that date except for inventory that is charged to the Consolidated Statement of Profit and Loss on sale of goods.

Cash flow hedges

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in other comprehensive income and accumulated under the heading cash flow hedging reserve within equity. The gain or loss relating to the ineffective portion is recognised immediately in the Consolidated statement of profit and loss, and is included in the '(Gain) / Loss in Fair Value of Derivatives' line item.

Amounts previously recognised in other comprehensive income and accumulated in equity are reclassified to the Consolidated statement of profit and loss in the periods when the hedged item affects the Consolidated statement of profit and loss, in the same line as the recognised hedged item. However, when the hedged forecast transaction results in the recognition of a non-financial asset or a non-financial liability, the gains and losses previously recognised in other comprehensive income and accumulated in equity are transferred from equity and included in the initial measurement of the cost of the non-financial asset or non-financial liability as a basis adjustment.

If the hedge ratio for risk management purposes in no longer optimal but the risk management objective remains unchanged and the hedge continues to qualify for hedge accounting, the hedge relationship will be rebalanced by adjusting either the volume of the hedging instrument or the volume of the hedged item so that the hedge ratio aligns with the ratio used for risk management purposes. Any hedge ineffectiveness is calculated and accounted for in the Consolidated statement of profit and loss at the time of the hedge relationship rebalancing.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated, or exercised, or when it no longer qualifies for hedge accounting. Any gain or loss recognised in other comprehensive income and accumulated in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in the Consolidated statement of profit and loss. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognised immediately in the Consolidated statement of profit and loss.

See Note 46 - Financial Risk Management and Derivative Financial Instruments for further details.

S. Cash and Cash Equivalents

Cash and cash equivalents comprise of cash at bank and in hand, short-term deposits and short term highly liquid investments with an original maturity of three months or less that are readily convertible to known amounts of cash and are subject to insignificant risk of changes in value.

For the purposes of the consolidated statement of cash flow, cash and cash equivalents is as defined above, net of outstanding bank overdrafts which are integral part of Cash management activities. In the consolidated balance sheet, bank overdrafts are shown within borrowings in current liabilities.

See Note 13 - Cash and Cash Equivalents for further details.

T. Borrowing cost

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale. The Group considers a period of twelve months or more as a substantial period of time. Qualifying assets are assets that necessarily take a substantial period of time to get ready for their intended use or sale.

Transaction cost in respect of long-term borrowings are amortised over the tenure of respective loans using effective interest method. All other borrowing costs are expensed in the period in which they are incurred.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization.

See Note 32 - Finance Cost for further details.

NOTES FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS

U. Accounting for Government Grants

Government grants are recognized when there is reasonable assurance that the Group will comply with the conditions attaching to them and that the grants will be received.

Government grants are recognised in the consolidated statement of profit and loss on a systematic basis over the periods in which the Group recognises as expenses the related costs for which the grants are intended to compensate. Government grants whose primary condition is that the Group should purchase, construct or otherwise acquire Non-Current assets are recognized in the consolidated balance sheet by setting up the grant as deferred income and its amortization is recognised in 'Other Income' on straight line basis over expected useful lives of related assets.

Other government grants (grants related to income) are recognized as income over the periods necessary to match them with the costs for which they are intended to compensate, on a systematic basis. Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of providing immediate financial support with no future related costs are recognized in the Consolidated statement of profit and loss in the period in which they become receivable.

Grants related to income are presented under Other Income or Other Operating Revenue in the Consolidated statement of profit and loss depending upon the nature of the underlying grant, except for grants received in the form of rebate or exemptions related to expenditures, which are deducted in reporting the related expense.

The benefit of a government loan at a below-market rate of interest is treated as a government grant, measured as the difference between proceeds received and the fair value of the loan based on prevailing market interest rates.

Emission allowances are initially recognised as an intangible asset measured at fair value when the Group is granted the allowances and able to exercise control with a corresponding recognition of a grant at the same amount under deferred income. As carbon dioxide is emitted, the corresponding tons of emission allowances initially recognised under deferred income is reclassified and recognized in the Consolidated statement of profit and loss on a systematic basis.

Emission allowances are not amortised as their carrying value equals their residual value and therefore the depreciable basis zero, as their value is constant until delivery to the authorities. Emission allowances are subject to impairment test.

The provision for the liability to deliver allowances is recognised based on actual emission. The provision is measured at the carrying amount of allowances to the extent that the provision will be settled using allowances on hand with any excess emission being measured at the market value of the allowances at the period end. The group records the expense in the Consolidated statement of profit and loss under other expenses.

When the emission allowances for the carbon dioxide emitted are delivered to the authorities, the intangible asset as well as the corresponding provision are de-recognized from the Consolidated balance sheet without any effect on the Consolidated statement of profit and loss.

See Note 25 - Revenue from Operations and Note 26 - Other Income for further details.

V. Employee Benefits

Retirement benefit, medical costs and termination benefits

A defined contribution plan is a pension plan under which the group pays fixed contributions into a separate entity. The Group has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. Payments to defined contribution retirement benefit plans are recognised as an expense when employees have rendered service entitling them to the contributions.

For defined benefit retirement and medical plans, the cost of providing benefits is determined using the projected unit credit method, with actuarial valuations being carried out at the end of each annual reporting period. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using market yields of government bonds having terms approximating to the terms of related obligation. In countries where there is a deep market in high-quality corporate bonds, the market rate on those bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension obligation are used.

Re-measurement, comprising of actuarial gains and losses, the effect of the changes to the asset ceiling (if applicable) and the return on plan assets (excluding interest), is reflected in the Consolidated balance sheet with a charge or credit recognised in other comprehensive income in the period in which they occur. Re-measurement recognised in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to the Consolidated statement of profit and loss. Past service cost is recognised in the Consolidated statement of profit and loss in the period of a plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit liability or asset. Defined benefit costs are categorised as follows:

- service cost (including current service cost, past service cost, as well as gains and losses on curtailments and settlements);
- net interest expense or income; and
- re-measurement.

The Group presents the first two components of defined benefit costs in the Consolidated statement of profit and loss in the line item employee benefits expense. Curtailment gains and losses are accounted for as past service costs.

The retirement benefit obligation recognised in the Consolidated balance sheet represents the actual deficit or surplus in the Group's defined benefit plans. Any surplus resulting from this calculation is limited to the present value of any economic benefits available in the form of refunds from the plans or reductions in future contributions to the plans.

A liability for a termination benefit is recognised at the earlier of when the Group can no longer withdraw the offer of the termination benefit or when the entity recognises any related restructuring costs which involves the payment of terminations benefits.

In the case of an offer made to encourage voluntary redundancy, the termination benefits are measured based on the number of employees expected to accept the offer. Benefits falling due more than 12 months after the end of the reporting period are discounted to their present value.

Short-term and other long-term employee benefits

A liability is recognised for benefits accruing to employees in respect of wages and salaries in the period the related service is rendered at the undiscounted amount of the benefits expected to be paid in exchange for that service.

Liabilities recognised in respect of short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in exchange for the related service.

Liabilities recognised in respect of other long-term employee benefits such as annual leave and sick leave are measured at the present value of the estimated future cash outflows expected to be made by the Group in respect of services provided by employees up to the reporting date. The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as used for defined benefit retirement plans. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to the Consolidated statement of profit and loss in the period in which they arise. These obligations are valued annually by independent qualified actuaries.

See Note 30 - Employee Benefits for further details.

W. Employee Share-based Payments

Equity-settled share-based payments to employees are measured at the fair value of options at the grant date.

The fair value of options at the grant is expensed over the respective vesting period in which all of the specified vesting conditions are to be satisfied with a corresponding increase in equity as "Employee Stock Options Account". In case of forfeiture of unvested option, portion of amount already expensed is reversed. In a situation where the vested options are forfeited or expires unexercised, the related balance standing to the credit of the "Employee Stock Options Account" are transferred to the "Retained Earnings".

When the options are exercised, the Company issues new equity shares of the Company of ₹ 1/- each fully paid-up. The proceeds received and the related balance standing to credit of the Employee Stock Options Account are credited to share capital (nominal value) and Securities Premium Account.

Share appreciation rights which are cash settled, are recognised as employee benefit expense over the relevant service period. The liability is fair valued at each reporting date and are presented as employee benefit obligations in the consolidated balance sheet.

See Note 41 - Employee Share-Based Payments for further details.

X. Income Taxes

Income tax expense represents the sum of the tax currently payable and deferred tax.

Current tax

The tax currently payable is based on taxable profit for the year. Taxable profit differs from 'profit before tax' as reported in the Consolidated statement of profit and loss because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date in the countries where the Group's entities operate and generate taxable income using tax rates that have been enacted or substantively enacted by the end of the reporting period.

NOTES FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS

Deferred tax

Deferred tax is recognised on differences between the carrying amounts of assets and liabilities in the consolidated balance sheet and the corresponding tax bases used in the computation of taxable profit. Where the local currency is not the functional currency, deferred tax is recognised on temporary difference arising from exchange rate changes between the closing rate and the historical purchase price of non-monetary assets translated at the exchange rate at the date of purchase if those non-monetary assets have tax consequences.

Deferred tax liabilities are generally recognised for all taxable temporary differences.

Deferred tax assets are generally recognised for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from initial recognition of goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Deferred tax liabilities are recognised for taxable temporary differences associated with investments in subsidiaries and associates, and interests in joint arrangements, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognised to the extent that it is probable that there will be sufficient taxable profits against which to utilise the benefits of the temporary differences and they are expected to reverse in the foreseeable future. Generally, the group is unable to control the reversal of the temporary difference for associates.

The carrying amount of deferred tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset realised, based on tax rates (and tax laws) that have been enacted or substantively enacted by the balance sheet date. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the reporting date, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Group intends to settle its current tax assets and liabilities on a net basis.

Minimum Alternative Tax (MAT) is recognized as an asset only when and to the extent there is convincing evidence that the Group will pay normal income tax during the specified period. In the year in which the MAT credit becomes eligible to be recognized as an asset, the said asset is created by way of credit to the consolidated statement of profit and loss and included in deferred tax assets. The Group reviews the same at each balance sheet date and writes down the carrying amount of MAT entitlement to the extent there is no longer convincing evidence to the effect that Group will pay normal income tax during the specified period.

Current and deferred tax for the period

Current and deferred tax are recognised in the Consolidated statement of profit and loss, except when they relate to items that are recognised in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognised in other comprehensive income or directly in equity, respectively. Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

The Group applies significant judgement in identifying uncertainties over income tax treatments. Uncertain tax positions are reflected in the overall measurement of tax expense of respective group entities and are based on the most likely amount or expected value that is to be disallowed by the taxing authorities in respective group entities, whichever better predict the resolution of uncertainty. Uncertain tax balances are monitored and updated as and when new information becomes available, typically upon examination or action by the taxing authorities or through statute expiration.

The Group considers when a particular amount payable for interest and penalties on income taxes is determined to be within the scope of Ind AS 37, it is presented as part of financing cost or other expenses, respectively unless when there is an overall settlement with tax authority and the interest and penalties cannot be identified separately in which case it is determined to be part of income taxes and accounted under Ind AS 12.

See Note 9 - Income Taxes for further details.

Y. Revenue Recognition

The Group derives revenue principally from sale of hydrate, speciality alumina, aluminium and aluminium value added products, di-ammonium phosphate, copper, precious metals (gold & silver) and other materials.

The Group recognizes revenue when it satisfies a performance obligation in accordance with the contract with the customer. This is achieved when control of the product has been transferred to the customer, which is generally determined when legal title, physical possession, risk of obsolescence, loss and rewards of ownership pass to the customer and the Group has the present right to payment, all of which occurs at a point in time upon shipment or delivery of the product. The Group considers shipping and handling activities as costs to fulfil the promise to transfer the related products and the customer payments for shipping and handling costs are recorded as a component of revenue.

In situations where revenue is recognized on shipment of goods, shipping and handling services are treated as a distinct separate performance obligation and the Group recognises revenue for such services when the performance obligation is completed.

The Group considers the terms of the contract in determining the transaction price. The transaction price is based upon the amount the Group expects to be entitled to in exchange for transferring of promised goods and services to the customer after deducting incentive programs, including but not limited to discounts, volume rebates etc. Transaction price excludes taxes and duties collected on behalf of the government.

For incentives offered to customers, the Group makes estimates related to customer performance and sales volume to determine the total amounts earned and to be recorded as deductions from "Revenue from contracts with customers". In making these estimates, the Group considers historical results that have a predictive value of the amount that the Group expects to be entitled to for the transferred goods and services. If historical results have limited predictive value or the Group has limited experience with similar types of incentives, the estimate is made in such a manner, which ensures that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur. The actual amounts may differ from these estimates and are accounted for prospectively. No element of significant financing is deemed present as the sales are made with a credit term, which is consistent with market practice. The Group's obligation to repair or replace faulty products under the standard warranty terms is recognised as a cost with a corresponding provision.

For certain customer contracts, final prices are determined based on the underlying market index of commodity prices at a future date, for example prices on the London Metal Exchange Limited (LME) or London Bullion Markets Association (LBMA). In such contracts, the Group records revenue on a provisional basis considering current market price when control is transferred to the customer. At the end of each period, prior to final settlement date, adjustments are made to the provisional sale price based on movements in the underlying market index of commodity prices up to the date of final price determination. Such variable price movement is accounted as other operating revenue.

Revenue from irrevocable bill and hold/ holding certificate contracts is recognised when it is probable that delivery will be made, goods have been identified and kept separately, are ready for delivery in the present condition and usual payment terms for such contracts applies. Under these arrangements, revenue is recognised once legal title has passed and all significant risks and rewards of ownership of the asset sold are transferred to the customer.

Export incentives and subsidies are recognized when there is reasonable assurance that the Group will comply with the conditions and the incentive will be received.

Claim on insurance companies, railway authorities and others are accounted for on acceptance basis.

Revenue excludes any taxes and duties collected on behalf of the government.

See Note 25 - Revenue from Operations for further details.

Z. Contract Liability

Contract liability is recognised when a payment for customer is already received before a related performance obligation is satisfied. If a customer pays consideration before the Group transfers goods or services to the customer, a contract liability is recognised when the payment is received.

As these are contracts that the Group expects, and has the ability, to fulfil through delivery of a non-financial item, these are presented as advance from customers and are recognised as revenue as and when control of respective commodities is transferred or service is provided to the customers under the agreements. The portion of the advance where either the Group does not have a unilateral right to defer settlement beyond twelve months or expects settlement within twelve months from the balance sheet date is classified as a current liability.

See Note 24 - Contract Liabilities for further details.

AA. Dividend and Interest Income

Dividend income from investments is recognised when the Group's right to receive payment has been established.

Interest income from a financial asset is recognised when it is probable that the economic benefits will flow to the Group and the amount of income can be measured reliably. Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

See Note 26 - Other Income for further details.

AB. Segment Reporting

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses, whose operating results are regularly reviewed by the Group's Chief Operating Decision Maker ("CODM") to make decisions for which discrete financial information is available. The Group prepares its segment information in conformity with the accounting policies adopted for preparing and presenting the financial statements of the Group as a whole. The CODM assesses the financial performance and position of the Group and makes strategic decisions. Operating segments are reported in a Manner consistent with the internal reporting provided to the CODM.

Allocation of common costs:

Common allocable costs are allocated to each segment according to the relative contribution of each segment to the total common costs.

Inter-segment transfers:

Inter-segment revenue has been accounted for based on the transaction price agreed to between segments which is based on current market prices.

Unallocated items:

Revenue, expenses, assets and liabilities which relate to the Group as a whole and not allocable to segments on reasonable basis have been included under 'unallocated revenue / expenses / assets / liabilities'.

See Note 40 - Segment Information for further details.

AC. Exceptional Items

Exceptional items include income or expense that are considered to be part of ordinary activities, however are of such significance and nature that separate disclosure enables the user of the financial statements to understand the impact in a more meaningful manner. Exceptional items are identified by virtue of their size, nature and incidence.

See Note 37 - Exceptional Income/ (Expenses) (Net) for further details.

1C. Measurement of fair value

a. Financial Instruments

The estimated fair value of the Group's financial instruments is based on market prices and valuation techniques. Valuations are made with the objective to include relevant factors that market participants would consider in setting a price, and to apply accepted economic and financial methodologies for the pricing of financial instruments. References for less active markets are carefully reviewed to establish relevant and comparable data.

b. Marketable and non-marketable Equity Securities

Fair value for listed shares is based on quoted market prices as of the reporting date. Fair value for unlisted shares is calculated based on commonly accepted valuation techniques utilizing significant unobservable data, primarily cash flow based models.

c. Derivatives

Fair value of financial derivatives is estimated as the present value of future cash flows, calculated by reference to quoted price curves and exchange rates as of the balance sheet date. Options are valued using appropriate option pricing models and credit spreads are applied where deemed to be significant.

d. Embedded Derivatives

Embedded derivatives that are separated from the host contract are valued by comparing the forward curve at contract inception to the forward curve as of the balance sheet date. Changes in the present value of the cash flows related to the embedded derivative are recognized in the Consolidated Balance Sheet and in the Consolidated Statement of Profit and Loss.

1D. Critical accounting judgment and key sources of estimation uncertainty

In preparing the financial statements in conformity with accounting principles generally accepted in India, management is required to make estimates and assumptions that affect reported amounts of assets and liabilities and the disclosure of contingent liabilities as at the date of the financial statements and the amounts of revenue and expenses during the reported period. Actual results could differ from those estimates. Any revision to such estimates is recognised in the period in which the same is determined.

The following paragraphs explains areas that are considered more critical, involving a higher degree of judgment and complexity.

(a) Joint Operation

The Group invest in certain consortiums which are accounted for as joint operation. A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control. When a group entity undertakes its activities under joint operations, the Group as a joint operator recognizes assets, liabilities, income and expenses in relation to its interest in a joint operation. (refer Note 48 C)

(b) Impairment of Goodwill

Goodwill represents the excess of the purchase price over the fair value of the identifiable net assets of acquired companies. Goodwill is not amortized; instead, it is tested for impairment at least annually. The recoverable amount is determined based on value in use or fair value less cost to sell calculations which require the use of assumptions as directly observable market prices are generally not exist for the Group's assets. However, fair value may be estimated based on recent transactions on comparable assets, internal models used by the Group for transactions involving the same type of assets or other relevant information. Calculation of value in use is a discounted cash flow calculation based on continued use of the assets in its present condition, excluding potential exploitation of improvement or expansion potential. (refer Note 4)

(c) Impairment of Non-Current Assets

Ind AS 36 requires that the Group assesses conditions that could cause an asset or a Cash Generating Unit (CGU) to become impaired and to test recoverability of potentially impaired assets. These conditions include changes resulting from market and economic environment, including internal and external factors such as the Group's market capitalization, significant changes in the Group's planned use of the assets or a significant adverse change in the expected prices, sales volumes or raw material cost. The identification of CGUs involves judgment, including assessment of where active markets exist, and the level of interdependency of cash inflows. CGU is usually the individual plant, unless the asset or asset group is an integral part of a value chain where no independent prices for the intermediate products exist, a group of plants is combined and managed to serve a common market, or where circumstances otherwise indicate significant interdependencies.

In accordance with Ind-AS 36, certain intangible assets are reviewed at least annually for impairment. If a loss in value is indicated, the recoverable amount is estimated as the higher of the CGU's fair value less cost to sell, or its value in use. Directly observable market prices rarely exist for the Group's assets, however, fair value may be estimated based on recent transactions on comparable assets, internal models used by the Group for transactions involving the same type of assets or other relevant information. Calculation of value in use is a discounted cash flow calculation based on continued use of the assets in its present condition, excluding potential exploitation of improvement or expansion potential.

Determination of the recoverable amount involves management estimates on highly uncertain matters, such as commodity prices and their impact on markets and prices for upgraded products, development in demand, inflation, operating expenses and tax and legal environment. The Group uses internal business plans, quoted market prices and the Group's best estimate of commodity prices, currency rates, discount rates and other relevant information. A detailed forecast is developed for a period of three to five years with projections thereafter.

(d) Employee retirement plans

The Group provides both defined benefit employee retirement plans and defined contribution plans. Measurement of pension and other superannuation costs and obligations under such plans require numerous assumptions and estimates that can have a significant impact on the recognized costs and obligation, such as future salary level, discount rate, attrition rate and mortality.

The Group provides defined benefit plans to its employees. The discount rate is based on Government bond yield. Assumptions for salary increase in the remaining service period for active plan participants are based on expected salary increase in India. Changes in these assumptions can influence the net asset or liability for the plan as well as the pension cost. (refer Note 30B)

(e) Environmental liabilities and Asset Retirement Obligation (ARO)

Estimation of environmental liabilities and ARO require interpretation of scientific and legal data, in addition to assumptions about probability and future costs. (refer Note 22)

(f) Taxes

The Group calculates income tax expense based on reported income. Deferred income tax expense is calculated based on the differences between the carrying value of assets and liabilities for financial reporting purposes and their respective tax basis that are considered temporary in nature. Valuation of deferred tax

NOTES FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS

assets is dependent on management's assessment of future recoverability of the deferred tax benefit. Expected recoverability may result from expected taxable income in the future, planned transactions or planned tax optimizing measures. Economic conditions may change and lead to a different conclusion regarding recoverability. (refer Note 9B and 9C). For judgements related to adoption of lower tax rate as per Section 115BBA of the Income tax Act, refer note 9B(iv).

(g) **Extension and termination option in a Lease**

Extension and termination options are included in many of the leases. In determining the lease term the Management considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option. This assessment is reviewed if a significant event or a significant change in circumstances occurs which affects this assessment and that is within the control of the Group.

(h) **Useful lives of depreciable/ amortisable assets (tangible and intangible)**

Management reviews its estimate of the useful lives of depreciable/ amortisable assets at each reporting date, based on the expected utility of the assets. Uncertainties in these estimates relate to technical and economic obsolescence that may change the utility of certain software, IT equipment and other plant and equipment.

(i) **Recoverability of advances/ receivables**

At each balance sheet date, based on discussions with the respective counter-parties and internal assessment of their credit worthiness, the management assesses the recoverability of outstanding receivables and advances. Such assessment requires significant management judgement based on financial position of the counter-parties, market information and other relevant factors.

(j) **Fair Value Measurements**

The Group applies valuation techniques to determine the fair value of financial instruments (where active market quotes are not available) and non-financial assets. This involves developing estimates and assumptions consistent with the market participants to price the instrument. The Group's assumptions are based on observable data as far as possible, otherwise on the best information available. Estimated fair values may vary from the actual prices that would be achieved in an arm's length transaction at the reporting date. (refer Note 45)

(k) **Contingent Assets and Liabilities, Provisions and Uncertain Tax Positions**

There are various legal, direct and indirect tax matters and other obligations including environmental, mining, local and state levies, income tax holiday, availing input tax credits etc., which may impact the Group. Evaluation of uncertain liabilities and contingent liabilities and assets arising out of above matters require management judgment and assumptions, regarding the probability of outflow or realization of economic resources and the timing and amount, or range of amounts, that may ultimately be determined. Such estimates may vary from the ultimate outcome as a result of differing interpretations of laws and facts, or application of relevant judicial precedents. (refer Note 9C, 22 and 43)

(l) **Inventory Measurement**

Measurement of bulk inventory quantities (such as coal, bauxite, copper concentrates, etc.) lying at yards and work in progress of precious metals at smelter and refinery is material, complex and involves significant judgement and estimate resulting from measuring the surface area, dip measurement of materials in tanks/silos, etc.

The Group performs physical counts of above inventory on a periodic basis using internal / external experts to perform volumetric surveys and assessments, basis which the estimate of quantity for these inventories is determined. The variations noted between book records and physical quantities of above inventories are evaluated and appropriately accounted in the books of accounts. (refer Note 11)

1E. Recent Accounting Pronouncements

(i) New and amended standards adopted by the Group

The Group has applied the following amendments to Ind AS for the first time for their annual reporting period commencing April 1, 2020:

- **Definition of Material – amendments to Ind AS 1 and Ind AS 8**

  Amendments are made to Ind AS 1- Presentation of Financial Statements and Ind AS 8 - Accounting Policies, Changes in Accounting Estimates and Errors, which use a consistent definition of materiality, clarify when information is material and incorporate some of the guidance in Ind AS 1 about immaterial information.

  In particular, the amendments clarify:

  - that the reference to obscuring information addresses situations in which the effect is similar to omitting or misstating that information, and that an entity assesses materiality in the context of the financial statements as a whole, and
  - the meaning of 'primary users of general purpose financial statements' to whom those financial statements are directed, by defining them as 'existing and potential investors, lenders and other creditors' that must rely on general purpose financial statements for much of the financial information they need.

- **Definition of a Business – amendments to Ind AS 103**

  The amended definition of a business requires an acquisition to include an input and a substantive process that together significantly contribute to the ability to create outputs. The definition of the term 'outputs' is amended to focus on goods and services provided to customers, generating investment income and other income, and it excludes returns in the form of lower costs and other economic benefits.

- **COVID-19 related concessions – amendments to Ind AS 116**

  Amendments to Ind AS 116 Leases, provides a practical expedient to apply rent concessions occurring as a direct consequence of the COVID-19 pandemic. Lessee that makes this election shall account for any change in lease payments resulting from the rent concession the same way it would account for the change applying this Standard if the change were not a lease modification.

- **Interest Rate Benchmark Reform – amendments to Ind AS 109 and Ind AS 107**

  The amendments made to Ind AS 109 Financial Instruments, and Ind AS 107 Financial Instruments: Disclosures provide certain reliefs in relation to interest rate benchmark reform. The reliefs relate to hedge accounting and have the effect that the reforms should not generally cause hedge accounting to terminate. However, any hedge ineffectiveness should continue to be recorded in the income statement.

The amendments listed above did not have any material impact on the Group's consolidated financial statements.

(ii) Amended applicable from next Financial year

On March 24, 2021, the Ministry of Corporate Affairs ("MCA") through a notification, amended Schedule III of the Companies Act, 2013. The amendments revise Division I, II and III of Schedule III and are applicable from April 1, 2021. Key amendments relating to Division II which relate to companies whose financial statements are required to comply with Companies (Indian Accounting Standards) Rules 2015 are:

Consolidated Balance Sheet:

- Lease liabilities should be separately disclosed under the head 'financial liabilities', duly distinguished as current or non-current.
- Certain additional disclosures in the statement of changes in equity such as changes in equity share capital due to prior period errors and restated balances at the beginning of the current reporting period.
- Specified format for disclosure of shareholding of promoters.
- Specified format for ageing schedule of trade receivables, trade payables, capital work-in-progress and intangible asset under development.
- If a company has not used funds for the specific purpose for which it was borrowed from banks and financial institutions, then disclosure of details of where it has been used.
- Specific disclosure under 'additional regulatory requirement' such as compliance with approved schemes of arrangements, compliance with number of layers of companies, title deeds of immovable property not held in name of company, loans and advances to promoters, directors, key managerial personnel (KMP) and related parties, details of benami property held, certain specified ratios etc.

Consolidated Statement of profit and loss:

- Additional disclosures relating to Corporate Social Responsibility (CSR), undisclosed income and crypto or virtual currency specified under the head 'additional information' in the notes forming part of the consolidated financial statements.

The amendments are extensive and the Group will evaluate the same to give effect to them as required by law.

NOTES FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS

2. Property, Plant and Equipment (including Right of Use Assets) and Capital Work-in-Progress

Refer Note 1B(D) for accounting policy on Property, Plant and Equipment
Refer Note 1B(M) for accounting policy on Leases
Refer Note 1B(J) for accounting policy on Impairment of Non-Current Assets (excluding Goodwill)

A. Property, Plant and Equipment and Capital Work-in-Progress

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Property, Plant and Equipment - Cost	118,169	108,938
Less: Accumulated Depreciation and Impairment	(49,235)	(44,629)
Net carrying amount of Property, Plant and Equipment	68,934	64,309
Capital Work-in-Progress - (e) & (f)	10,013	7,610

(₹ in Crore)

Particulars	ORIGINAL COST						ACCUMULATED DEPRECIATION AND IMPAIRMENT						NET CARRYING AMOUNT	
	As at April 01, 2020	Additions	Additions due to Aleris acquisition*	Disposal/ Adjustments	Exchange differences	As at March 31, 2021	As at April 01, 2020	Depreciation	Impairment/ (Reversal)	Disposal/ Adjustments	Exchange differences	As at March 31, 2021	As at March 31, 2021	As at March 31, 2020
Freehold Land	2,738	72	276	7	45	3,138	164	4	-	3	(4)	167	2,971	2,574
Leasehold Improvements	430	3	9	(1)	(9)	432	176	27	-	(1)	(2)	200	232	254
Buildings	20,241	459	1,758	11	(50)	22,419	7,023	902	23	(6)	(13)	7,929	14,490	13,218
Plant and Machinery	82,034	2,306	4,621	(748)	44	88,257	35,050	4,172	48	(730)	(11)	38,529	49,728	46,984
Vehicles and Aircraft	721	35	1	(30)	(3)	724	415	56	-	(25)	(1)	445	279	306
Railway Wagons	336	-	-	-	-	336	140	19	-	-	-	159	177	196
Railway Sidings	490	7	-	-	-	497	193	28	-	-	-	221	276	297
Furniture and Fixtures	1,221	162	4	(67)	25	1,345	883	88	-	(67)	23	927	418	338
Office Equipment	727	126	206	(57)	19	1,021	585	110	-	(47)	10	658	363	142
Total	**108,938**	**3,170**	**6,875**	**(885)**	**71**	**118,169**	**44,629**	**5,406**	**71**	**(873)**	**2**	**49,235**	**68,934**	**64,309**

(₹ in Crore)

Particulars	ORIGINAL COST					ACCUMULATED DEPRECIATION AND IMPAIRMENT						NET CARRYING AMOUNT	
	As at April 01, 2019	Additions	Disposal/ Adjustments	Exchange differences	As at March 31, 2020	As at April 01, 2019	Depreciation	Impairment/ (Reversal)	Disposal/ Adjustments	Exchange differences	As at March 31, 2020	As at March 31, 2020	As at March 31, 2019
Freehold Land	2,605	31	(3)	105	2,738	101	4	48	-	11	164	2,574	2,504
Leasehold Improvements	320	9	79	22	430	104	17	-	43	12	176	254	216
Buildings	19,127	432	(49)	731	20,241	6,024	743	5	(65)	316	7,023	13,218	13,103
Plant and Machinery	78,040	2,167	(685)	2,512	82,034	30,860	3,290	22	(415)	1,293	35,050	46,984	47,180
Vehicles and Aircraft	649	72	(21)	21	721	365	52	-	(14)	12	415	306	284
Railway Wagons	123	23	190	-	336	39	17	-	84	-	140	196	84
Railway Sidings	489	1	-	-	490	166	27	-	-	-	193	297	323
Furniture and Fixtures	1,108	70	(16)	59	1,221	780	72	6	(15)	40	883	338	328
Office Equipment	622	80	(13)	38	727	517	49	-	(12)	31	585	142	105
Total	**103,083**	**2,885**	**(518)**	**3,488**	**108,938**	**38,956**	**4,271**	**81**	**(394)**	**1,715**	**44,629**	**64,309**	**64,127**

* Refer Note 49 - Business Combination

(a) Group's share in jointly owned assets has been grouped together with the relevant class of property, plant and equipment. The cost and net carrying amounts included in relevant class of assets are given below:

(₹ in Crore)

	31/03/2021		31/03/2020	
	Original Cost	Net Carrying Amount	Original Cost	Net Carrying Amount
Freehold Land	52	52	52	52
Buildings	50	37	41	29
Plant and Machinery	41	2	41	2
Furniture and Fixtures	14	10	4	-
Vehicles and Aircraft	-	-	-	-
Office Equipment	9	2	6	1

(b) For assets pledged and Hypothecated against borrowings, refer Note 18A.

(c) For impairment charge/(reversal), refer Note 34.

(d) For capital expenditures contracted but not incurred, refer to Note 43 (B).

(e) Capital Work in Progress (CWIP) comprise of various routine, non-routine projects and expansion spread over across the Group.

(f) The Group has tested the carrying value of CWIP for impairment as at reporting date and recorded an impairment charge of ₹ 5 crore (31/03/2020 ₹ 14 crore). refer Note 34.

(g)

Items of Property, Plant and Equipment	Useful life (Years)
Freehold Land	Infinite $
Leasehold Improvements	7 - 90
Buildings	3 - 60
Plant and Machinery	2 - 40
Vehicles and Aircraft	2 - 25
Railway Wagons	15
Railway Sidings	15
Furniture and Fixtures	3 - 10
Office Equipment	2 - 25

$ Freehold land used for mining is depreciated over 8 - 30 years.

(h) The Property, Plant and Equipment residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

(i) Assets for which registration is pending:

Freehold Land: Original Cost ₹ 31 crore (31/03/2020: ₹ 31 crore). Carrying Amount ₹ 28 Crore (31/03/2020: ₹ 29 crore).

(j) During the year, the Group has reclassified certain assets which were kept as Assets of Disposal Group held for Sale to Property, Plant and equipment are presented in 'Disposal/ Adjustment' column. refer Note 15.

NOTES FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS

B. Right of Use Assets

The Group leases many assets including Land, Buildings, Stadium Suit, Plant and Machinery, Vehicles, Aircraft, Boats, Railway wagons, Railway sidings and furniture. These right of use assets are presented as part of 'Property, plant and equipment' under non-current assets on the face of the consolidated balance sheet.

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Right of Use Assets - Cost	2,524	2,109
Less: Accumulated Depreciation and Impairment	(609)	(351)
Net carrying amount of Right of Use Assets	1,915	1,758

(₹ in Crore)

Particulars	ORIGINAL COST						ACCUMULATED DEPRECIATION AND IMPAIRMENT						NET CARRYING AMOUNT	
	As at April 01, 2020	Additions	Additions due to Aleris acquisition*	Disposal/ Adjustments	Exchange differences	As at March 31, 2021	As at April 01, 2020	Depreciation	Impairment/ (Reversal)	Disposal/ Adjustments	Exchange differences	As at March 31, 2021	As at March 31, 2021	As at March 31, 2020
Leasehold Land	1,031	5	98	6	6	1,146	28	39	-	6	1	74	1,072	1,003
Buildings	425	227	69	(174)	(12)	535	80	129	-	(42)	(2)	165	370	345
Stadium Suit	21	21	-	-	(1)	41	3	2	-	4	-	9	32	18
Plant and Machinery	132	37	43	(13)	9	208	90	30	-	(5)	-	115	93	42
Vehicles and Aircraft	197	131	10	(62)	3	279	69	87	-	(50)	1	107	172	128
Boats	59	-	-	-	-	59	10	12	-	-	-	22	37	49
Railway Wagons	171	-	-	-	5	176	35	38	-	-	1	74	102	136
Railway Sidings	21	-	-	(19)	-	2	9	-	-	(9)	-	-	2	12
Waterfront	1	-	-	-	-	1	-	-	-	-	-	-	1	1
Furniture and Fixtures	42	-	-	(7)	1	36	22	7	-	(7)	-	22	14	20
Office Equipment	9	30	7	(4)	(1)	41	5	18	-	(2)	-	21	20	4
Total	2,109	451	227	(273)	10	2,524	351	362	-	(105)	1	609	1,915	1,758

(₹ in Crore)

Particulars	ORIGINAL COST					ACCUMULATED DEPRECIATION AND IMPAIRMENT						NET CARRYING AMOUNT
	As at April 01, 2019	Additions	Disposal/ Adjustments	Exchange differences	As at March 31, 2020	As at April 01, 2019	Depreciation	Impairment/ (Reversal)	Disposal/ Adjustments	Exchange differences	As at March 31, 2020	As at March 31, 2020
Leasehold Land	847	170	-	14	1,031	-	27	-	-	1	28	1,003
Buildings	362	142	(102)	23	425	1	77	-	(1)	3	80	345
Stadium Suit	19	-	-	2	21	-	3	-	-	-	3	18
Plant and Machinery	136	8	(18)	6	132	92	8	-	(14)	4	90	42
Vehicles and Aircraft	155	58	(25)	9	197	2	81	-	(16)	2	69	128
Boats	2	59	(2)	-	59	-	10	-	-	-	10	49
Railway Wagons	159	5	-	7	171	-	33	-	-	2	35	136
Railway Sidings	22	-	(1)	-	21	-	10	-	(1)	-	9	12
Waterfront	1	-	-	-	1	-	-	-	-	-	-	1
Furniture and Fixtures	39	3	(3)	3	42	17	8	-	(3)	-	22	20
Office Equipment	8	2	(2)	1	9	2	4	-	(1)	-	5	4
Total	1,750	447	(153)	65	2,109	114	261	-	(36)	12	351	1,758

* Refer Note 49 - Business Combination

C. Lease Liabilities recognised against Right of Use Assets are as follows:

(₹ in Crore)

	As at 31/03/2021		As at 31/03/2020	
	Non-Current	Current	Non-Current	Current
Lease Liabilities against Right of Use Assets	928	300	872	270
	928	300	872	270

3. Investment Property

Refer Note 1B(E) for accounting policy on Investment Property

Refer Note 1B(J) for accounting policy on Impairment of Non-Current Assets (excluding Goodwill)

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Cost	34	34
Less: Accumulated Depreciation and Impairment	(13)	(12)
Net Carrying amount	**21**	**22**

(₹ in Crore)

Particulars	ORIGINAL COST					ACCUMULATED DEPRECIATION AND IMPAIRMENT						NET CARRYING AMOUNT	
	As at April 01, 2020	Additions	Disposal/ Adjustments	Exchange differences	As at March 31, 2021	As at April 01, 2020	Depreciation	Impairment/ (Reversal)	Disposal/ Adjustments	Exchange differences	As at March 31, 2021	As at March 31, 2021	As at March 31, 2020
Freehold Land	1	-	-	-	1	-	-	-	-	-	-	1	1
Buildings	33	-	-	-	33	12	1	-	-	-	13	20	21
Total	34	-	-	-	34	12	1	-	-	-	13	21	22

(₹ in Crore)

Particulars	ORIGINAL COST					ACCUMULATED DEPRECIATION AND IMPAIRMENT						NET CARRYING AMOUNT	
	As at April 01, 2019	Additions	Disposal/ Adjustments	Exchange differences	As at March 31, 2020	As at April 01, 2019	Depreciation	Impairment/ (Reversal)	Disposal/ Adjustments	Exchange differences	As at March 31, 2020	As at March 31, 2020	As at March 31, 2019
Freehold Land	1	-	-	-	1	-	-	-	-	-	-	1	1
Buildings	33	-	-	-	33	11	1	-	-	-	12	21	22
Total	34	-	-	-	34	11	1	-	-	-	12	22	23

(a) Amount recognised in profit and loss for Investment Properties are as under:

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Rental Income	6	7
Direct operating expenses (including repair and maintenance) on properties generating rental income	(1)	(1)

(b) The Group has no contractual obligations to purchase, construct or develop investment properties or for repairs, maintenance and enhancements. There are no restrictions on the realisability of investment properties or the remittance of income and proceeds of disposal on the Group.

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(c) The fair value of the Group's investment properties as at 31/03/2021 and 31/03/2020 have been arrived on the basis of valuation carried out at the respective dates by an external, independent valuer registered with the authority which governs the valuer in India. The fair value measurement for all the investments properties has been categorised as Level 2 fair value based on the inputs to the valuation technique used. Considering the type of the assets, market approach (sales comparable method) to estimate the fair value of the subject properties is adopted.

Fair value of investment properties and their fair value hierarchy given below:

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
	Level 2	Level 2
Freehold land	3	4
Buildings	96	95

(d)

Items of Investment Property	Useful life (Years)
Freehold Land	Infinite
Buildings	60 Years

(e) Certain Investment Properties are given as security towards Non-Convertible debentures of ₹ 6,000 Crore (31/03/2020: ₹ 6,000 Crore), refer Note - 18A (a).

4. Goodwill

Refer Note 1B(I) for accounting policy on Goodwill

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Cost	23,317	20,098
Less: Accumulated Impairment	-	-
Net Carrying amount	**23,317**	**20,098**

(₹ in Crore)

	Cost	Accumulated Impairment	Net carrying amount
Balance as at April 01, 2019	18,575	-	18,575
Exchange differences	1,523	-	1,523
Balance as at March 31, 2020	**20,098**	**-**	**20,098**
Addition through business combination - (refer Note 49)	3,562	-	3,562
Exchange differences	(343)	-	(343)
Balance as at March 31, 2021	**23,317**	**-**	**23,317**

(a) **Impairment testing of Goodwill**

Goodwill acquired in business combinations has been allocated to following cash generating units (CGU) of Aluminium and Novelis segment. However, there were no goodwill acquired with regard to 'Copper Segment' and 'All Other Segment'.

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Novelis segment		
Novelis - North America	10,549	8,048
Novelis - Europe	8,237	7,755
Novelis - South America	2,677	2,757
Novelis - Asia	1,744	1,428
Aluminium segment		
Utkal Alumina International Limited (Utkal)	110	110
Minerals and Minerals Limited (M&M)	*	*
	23,317	**20,098**

* it represents Goodwill on acquisition of M&M ₹ 0.12 Crore.

Goodwill is not amortized, instead, it is tested for impairment annually or more frequently if indicators of impairment exist. The recoverable amount of a cash generating unit (CGU) is determined based on value-in-use or fair value less cost to sell calculations which require the use of certain assumptions. The calculations use cash flow projections based on financial budgets approved by management covering three to five years period depending upon segment/ CGU's financial budgeting process. Cash flow beyond these financial budget period are extrapolated using the estimated growth rates.

The key assumptions used in the estimation of the recoverable amount of CGU's are set out below. The values assigned to the key assumptions represent management's assessment of future trends in the relevant industries and economic environment and have been based on historical data from both external and internal sources.

	Aluminium segment		Novelis segment	
	31/03/2021	31/03/2020	31/03/2021	31/03/2020
Discount rate (i)	13.20%	13.20%	8.82%	7.96%
Terminal growth rate (ii)	4.50%	5.00%	2.25%	2.25%
EV/EBITDA multiple in times (in Novelis segment)	-	-	7 to 10.5	6 to 10

i. For Novelis segment, the estimate of fair value (Level 3) less cost to sell for each cash generating unit is based on average of discounted cash flows (the income approach) and guideline public company method which considers enterprise Value ("EV")/EBITDA multiples of comparable companies adjusted with control premium (the market approach).

Under the income approach, the fair value of each cash generating unit is based on the present value of estimated future cash flows. The income approach is dependent on a number of significant management assumptions including markets and market share, sales volumes and prices, costs to produce, capital spending, working capital changes and the discount rate. These projected cash flows are discounted to the present value using a weighted average cost of capital (discount rate). The discount rate is commensurate with the risk inherent in the projected cash flows and reflects the rate of return required by an investor in the current economic conditions. The projections are based on both past performance and the expectations of future performance and assumptions used in Novelis's current operating plan.

The Group uses the trailing and forward EV/EBITDA multiples. EV is defined as the total of equity capital plus debt capital. The trailing multiples have been based on the EBITDA of the trailing twelve months preceding the valuation date and the forward multiples have been based on the one-year and two-year forward consensus analyst EBITDA estimates as on the valuation date and has been adjusted for control premium.

For Aluminium segment, the recoverable amount is determined based on value in use and the projected cash flows are discounted to the present value using pre-tax weighted average cost of capital (discount rate). The discount rate commensurate with the risk inherent in the projected cash flows and reflects the rate of return required by an investor in the current economic conditions.

The Group assessed the impact of change in key assumption related to Aluminium segment and did not notice any material change in its recoverable value and thereby has concluded that the change will not cause recoverable value fall below its carrying value.

ii. The Group use's specific revenue growth assumptions for each cash generating unit based on history and economic conditions.

As a result of goodwill impairment test for the year ended 31/03/2021 and year ended 31/03/2020, no goodwill impairment was identified as the recoverable value of the CGUs to whom goodwill was allocated exceeded their respective carrying amounts at all the periods reported above.

(b) **Impact of possible changes in key assumptions**

Goodwill in the Consolidated Financial Statements primarily consists of goodwill in Novelis segment, wherein goodwill has been allocated in four CGUs. The recoverable amount of each of these four CGU would equal its carrying amount if the key assumptions were to change as follows:

	As at 31/03/2021		As at 31/03/2020	
	From	To	From	To
i. Long-term growth rate (%)				
Novelis - North America	2.25%	**	2.25%	**
Novelis - Europe	2.25%	**	2.25%	0.36%
Novelis - South America	2.25%	**	2.25%	**
Novelis - Asia	2.25%	**	2.25%	**
ii. Post-tax discount rate (%)				
Novelis - North America	8.82%	**	7.96%	**
Novelis - Europe	8.82%	**	7.96%	9.36%
Novelis - South America	8.82%	**	7.96%	**
Novelis - Asia	8.82%	**	7.96%	**
iii. EV/EBITDA multiple (in times)				
Novelis - North America	7 - 10.5	**	6 - 8	**
Novelis - Europe	8.5 - 13.5	**	8 - 10	7.03
Novelis - South America	7 - 10.5	**	8 - 10	**
Novelis - Asia	8.5 - 13.5	**	6 - 8	**

** Management believes that no reasonably possible change in any of the above key assumptions would cause the recoverable amount to fall below the carrying value of any of the CGU having allocated goodwill.

5. Other Intangible Assets and Intangible Assets under Development

Refer Note 1B(F) for accounting policy on Intangible Assets (Other than goodwill)
Refer Note 1B(G) for accounting policy on Stripping cost
Refer Note 1B(J) for accounting policy on Impairment of Non-Current Assets (excluding Goodwill)

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Cost	13,008	9,155
Less: Accumulated Amortisation and Impairment	(6,926)	(6,147)
Net Carrying amount	**6,082**	**3,008**
Intangible Assets under Development - (c), (d)	189	111

(₹ in Crore)

Particulars	ORIGINAL COST						ACCUMULATED AMORTISATION AND IMPAIRMENT						NET CARRYING AMOUNT	
	As at April 01, 2020	Additions	Additions due to Aleris acquisition*	Disposal/ Adjustments	Exchange differences	As at March 31, 2021	As at April 01, 2020	Amortisation	Impairment/ (Reversal)	Disposal/ Adjustments	Exchange differences	As at March 31, 2021	As at March 31, 2021	As at March 31, 2020
Mining Rights	715	59	-	31	(2)	803	321	45	44	-	(4)	406	397	394
Trade Name	1,100	-	73	-	(35)	1,138	717	81	-	-	(21)	777	361	383
Technology and Software	3,747	123	401	-	24	4,295	2,953	449	-	-	(70)	3,332	963	794
Customer related Intangible Assets	3,358	-	3,066	-	(149)	6,275	2,156	291	-	-	(36)	2,411	3,864	1,202
Carbon Emission Rights	235	268	18	(13)	(11)	497	-	-	-	-	-	-	497	235
Total	**9,155**	**450**	**3,558**	**18**	**(173)**	**13,008**	**6,147**	**866**	**44**	**-**	**(131)**	**6,926**	**6,082**	**3,008**

(₹ in Crore)

Particulars	ORIGINAL COST					ACCUMULATED AMORTISATION AND IMPAIRMENT						NET CARRYING AMOUNT	
	As at April 01, 2019	Additions	Disposal/ Adjustments	Exchange differences	As at March 31, 2020	As at April 01, 2019	Amortisation	Impairment/ (Reversal)	Disposal/ Adjustments	Exchange differences	As at March 31, 2020	As at March 31, 2020	As at March 31, 2019
Mining Rights	671	51	-	(7)	715	271	59	-	-	(9)	321	394	400
Trade Name	1,012	-	-	88	1,100	612	50	-	-	55	717	383	400
Technology and Software	3,216	263	(2)	270	3,747	2,450	296	-	-	207	2,953	794	766
Customer related Intangible Assets	3,088	-	(1)	271	3,358	1,828	158	-	-	170	2,156	1,202	1,260
Right to Use Assets	81	-	(81)	-	-	55	-	(55)	-	-	-	-	26
Carbon Emission Rights	225	-	(9)	19	235	-	-	-	-	-	-	235	225
Total	**8,293**	**314**	**(93)**	**641**	**9,155**	**5,216**	**563**	**(55)**	**-**	**423**	**6,147**	**3,008**	**3,077**

* Refer Note 49 - Business Combination

(a) Trade name and customer related intangible assets were established in purchase accounting during acquisition of Novelis Inc. by the Company, whereas Technology and software mainly related to products the Group license and internally developed software.

(b) Addition in Mining Rights includes ₹ 44 crore and amortization expense includes ₹ 20 Crore (31/03/2020, addition included ₹ 47 Crore, and amortization expense included ₹ 38 Crore) towards stripping activity assets.

(c) The Carrying Amount of Intangible Asset under Development includes ₹ 116 Crore (31/03/2020: ₹ 70 Crore) pertaining to Enterprise Resource Planning System implementation.

(d) The Group has tested the carrying value of Intangible Asset under Development for impairment as at reporting date and recorded an impairment charge of ₹ Nil (31/03/2020 ₹ 14 crore) on the same.

During the year, the Group has impaired the Mining rights assets and recorded an impairment charge of ₹ 44 crore on the same.

(e) For impairment charges or reversal on above Intangible assets and intangible assets under development, refer Note 34.

(f) **Items of Intangible Assets**

	Useful life (Years)	Remaining useful life (Years)
Trade Name	3 - 20	6.05 - 17.9
Technology and Software	3 - 10	3 - 9
Customer related Intangible Assets	20 - 22.3	21.3
Mining Rights	8 - 41	5 - 35

(g) For assets pledged and Hypothecated against borrowings, refer Note 18A.

(h) The Intangible assets useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

(i) All Computer Software items in Intangible Assets (except of Mahan Aluminium, Aditya Aluminium, Kalwa Plant of the Company) are also given as security towards Non-convertible debentures of ₹ 6,000 Crore (as at 31/03/2020: ₹ 6,000 Crore). Refer note - 18A (a).

6A. Investments, Non-Current

(Fully paid-up unless otherwise stated)

Refer Note 1B(Q) for accounting policy on Financial Instruments

(₹ in Crore)

	Face value per Unit	Numbers as at		Value as at	
		31/03/2021	31/03/2020	31/03/2021	31/03/2020
Equity Instruments at FVTOCI - (a)					
Quoted					
National Aluminium Company Limited - (Refer Note 6B(a))	₹ 5	29,233,228	47,618,555	158	139
Grasim Industries Limited	₹ 2	28,464,653	28,464,653	4,129	1,355
Ultra Tech Cement Limited	₹ 10	1,258,515	1,258,515	848	408
Vodafone Idea Limited	₹ 10	751,119,164	751,119,164	695	233
Aditya Birla Fashion and Retail Limited	₹ 10	44,982,142	44,982,142	905	688
Aditya Birla Fashion and Retail Limited (Partly paid up) - (b)	₹ 7.50	5,257,652	-	89	-
Gujarat Narmada Valley Fertilizers & Chemicals Limited	₹ 10	100	100	-	-
Gujarat State Fertilizers & Chemicals Limited	₹ 2	500	500	-	-
Southern Petrochemical Industries Limited	₹ 10	100	100	-	-
Madras Fertilizer Limited	₹ 10	100	100	-	-
Rashtriya Chemicals and Fertilizers Limited	₹ 10	100	100	-	-
Aditya Birla Capital Limited	₹ 10	39,850,514	39,850,514	475	168
				7,299	2,991
Unquoted					
Sai Wardha Power Generation Limited - (c)	₹ 10	2,830,352	2,830,352	-	3
Birla International Limited	CHF 100	2,500	2,500	5	5
Bharuch-Dahej Railway Company Limited	₹ 10	13,530,000	13,530,000	15	19
Birla Management Centre Services Limited	₹ 10	9,500	9,500	10	8
				30	35
Debt Instruments at FVTOCI - (a)					
Quoted					
Government Securities - (d)					
6.83% Government of India Bond, 2039		2,000,000	2,000,000	20	20
6.57% Government of India Bond, 2033		5,000,000	-	50	-
6.45% Government of India Bond, 2029		5,000,000	-	50	-
5.79% Government of India Bond, 2030		10,000,000	-	96	-
6.19% Government of India Bond, 2034		10,000,000	-	96	-
				312	20

	Face value per Unit	Numbers as at		Value as at	
		31/03/2021	31/03/2020	31/03/2021	31/03/2020
Debt Instruments at FVTPL - (a)					
Unquoted					
Preference Shares					
Aditya Birla Health Services Limited - 7% Redeemable, Non Cumulative - (e)	₹ 100	2,500,000	2,500,000	25	25
Birla Management Centre Services Limited - 9% Redeemable Cumulative	₹ 10	300	300	-	-
				25	25
Unquoted					
Mutual Funds					
Investments in Debt Schemes of Mutual Funds				4	20
				4	20
				371	100
				7,670	**3,091**

(a) Aggregate amount of Quoted and Unquoted Investments, Market value of Quoted Investments are given below:

Aggregate Cost of Quoted Investments	1,509	1,252
Aggregate Market value of Quoted Investments	7,611	3,011
Aggregate Cost of Unquoted Investments	53	66
Aggregate amount of impairment in value of investments	3	-

(b) During the current year, the Group has subscribed to the Rights issue of Aditya Birla Fashion & Retail Limited at ₹ 110 per share (Face value of ₹ 10 and Premium of ₹ 100). The Group has invested ₹ 43 Crore (5,257,652 shares at ₹ 82.50 per share) and Final call of ₹ 27.50 per share is yet to be made.

(c) The Group entered in Power Purchase agreement with Sai Wardha Power Generation Limited ("SWPGL") in 2017 under Group Captive Power purchase scheme("GCPP scheme") under the Electricity Act 2003. To meet the requirement of GCPP Scheme the Group participated in equity of SWPGL to the extent of 0.70%. In the current year this investment has been impaired subsequent to National Company Law Tribunal (NCLT) judgment declaring SWPGL as insolvent.

(d) Includes ₹ 242 crore (31/03/2020: ₹ Nil crore) being deposit as margin money with counter parties for derivative transactions.

(e) These are Non Cumulative, Non Convertible Preference Shares and Redeemable within 15 years from the allotment date i.e. March 29, 2019.

6B. Investments, Current

Refer Note 1B(Q) for accounting policy on Financial Instruments

(₹ in Crore)

	Face value per Unit	Numbers as at		Value as at	
		31/03/2021	31/03/2020	31/03/2021	31/03/2020
Quoted - (d)					
Investments in Equity Instruments at FVTOCI - (a)					
National Aluminium Company Limited (Fully paid-up)	₹ 5	18,385,327	-	99	-
Investment in Government Securities at FVTOCI				73	73
Investment in Debentures and Bonds at FVTPL				164	210
Investment in Debt Schemes of Mutual Funds at FVTPL - (b)				9,081	5,996
				9,417	6,279

(a) During the current year, the Group has decided to sale its entire investment in National Aluminium Company Limited (NALCO) held by the Parent. Accordingly the Group's investment in NALCO to the extent of shares held by the Parent has been reclassified as current investment.

(b) Includes ₹ 25 crore (31/03/2020: ₹ 161 crore) being deposit as margin money with counter parties for derivative transactions.

(c) Details of each of the category of investment mentioned above are available in separate financial statements of respective group entities.

(d) Aggregate amount of Quoted and Unquoted Investments, Market value of Quoted investments are given below:

Aggregate cost of Quoted Investments	9,232	5,882
Aggregate Market value of Quoted Investments	9,417	6,279
Aggregate Cost of Unquoted Investments	-	-

7. Loans

(Unsecured, Considered Good unless otherwise stated)

Refer Note 1B(Q) for accounting policy on Financial Instruments

(₹ in Crore)

	As at			
	31/03/2021		31/03/2020	
	Non-Current	Current	Non-Current	Current
Loan to Related Parties - (refer Note 42)	-	41	-	46
Loan to Employees	10	6	10	9
Loan to Others	2	-	2	-
	12	47	12	55

8A. Other Financial Assets, Non-Current

(Unsecured, Considered Good unless otherwise stated)

Refer Note 1B(Q) for accounting policy on Financial Instruments

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Contingent Consideration (measured at fair value through profit and loss) - (refer Note 50)	819	-
Security Deposits - (a), (b)	152	131
Deposit with Others - (a), (c)	153	136
Other Receivables - (d)	23	25
	1,147	292

(a) Refer Note 42 for balances with related parties.

(b) Includes Security Deposit pledged of ₹ 4 crore (31/03/2020: ₹ 4 crore).

(c) During the current year earmarked balances with Banks is ₹ 142 Crore (31/03/2020: ₹ 111 Crore).

(d) Mainly represents finance lease receivable.

8B. Other Financial Assets, Current

(Unsecured, Considered Good unless otherwise stated)

Refer Note 1B(Q) for accounting policy on Financial Instruments

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Derivative matured pending realisation	306	501
Security Deposits - (a)	24	37
Deposits with Non Banking Financial Company with initial maturity more than 3 months	150	-
Accrued Interest	34	34
Other Receivables - (a), (b)		
Unsecured, Considered Good	575	238
Unsecured, Considered Doubtful	12	63
Less : Allowance for Doubtful amount	(12)	(63)
	1,089	810

(a) Refer Note 42 for balances with related parties.

(b) Includes amount receivable from Liberty Group for the sale of Duffel Business ₹ 135 Crore (USD 18.5 million) as part of working capital and net debt adjustment, and an amount receivable from AIP for the sale of Lewisport Business ₹ 122 Crore (USD 16.7 million). For details refer Note 50.

9. Income Taxes

Refer Note 1B(X) for accounting policy on Income Taxes

A. Current Tax and Deferred Tax Expense

The Group's income tax expenses and effective tax rate reconciliation given below:

(a) Amount recognised in Statement of Profit and Loss

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Current Tax		
Current Tax Expenses for the year	1,868	1,556
Adjustments for current tax of prior periods (Net)	13	(15)
	1,881	1,541
Deferred Tax		
Deferred Income Tax Expenses - (ii)	1,291	857
MAT Credit Entitlement	(449)	(241)
	842	616
Income Tax Expenses related to Continuing operations	2,723	2,157
Income Tax Expenses related to Discontinued Operations	(367)	-
Total Income Tax Expenses	2,356	2,157

i. Applicable Indian Statutory Income Tax rate for the year ended March 31, 2021 and March 31, 2020 is 34.944% and 34.944%, respectively.

ii. Deferred income tax expenses during the year ended March 31, 2020 includes the effect of change in tax rates - benefit of ₹ 44 crore primarily related to Swiss tax reform and the substantive enactment of a statutory rate change in the United Kingdom.

iii. MAT Credit entitlement includes ₹ 165 crore (31/03/2020: ₹ 89 crore) pertaining to Utkal Alumina International Limited.

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(b) Reconciliation of Effective Tax Rate

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Profit/ (Loss) before Tax from Continuing and Discontinued Operation	5,839	5,924
Indian Statutory Income Tax Rate (%)	34.944%	34.944%
Tax expenses using the Company's domestic tax rate	2,040	2,070
Tax effect of adjustments to reconcile reported income tax expense:		
Tax credits and other concessions	(173)	(120)
Income exempt from tax	(152)	(120)
Expenses not deductible in determining taxable profit	199	197
Tax on income (domestic and foreign) at rates different from statutory income tax rate	76	(202)
Adjustments pertaining to prior years	31	(15)
Uncertain tax positions	32	24
Tax on Undistributed Earnings	(1)	17
Deferred tax not recognised on carry forward losses and benefits	169	110
Foreign exchange translation & remeasurement	72	212
Others	63	(16)
Total Tax expenses recognised in the Consolidated Statement of Profit and Loss	**2,356**	**2,157**

B. Deferred Tax Assets and Liabilities

i. Deferred Tax Assets (Net)

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Deferred Tax Assets	1,244	1,832
Deferred Tax Liabilities	(357)	(922)
	887	910

Major components of Deferred Tax Assets (Net) arising on account of temporary timing differences and movement thereof are given below:

(₹ in Crore)

	As at April 01, 2019	Recognised in Statement of Profit and Loss	Recognised in OCI	Recognised directly in Equity	Exchange Differences	Reclass (DTL/DTA)	As at March 31, 2020
Deferred Tax Assets							
Provisions deductible for tax purposes in future period	1,208	(274)	137	-	143	-	1,214
PP&E Depreciation and Intangible Amortisation	51	16	-	-	10	-	77
Tax (losses)/benefits carry forwards, net #	1,170	(223)	-	-	34	(746)	235
Inventory valuation reserves	33	(15)	-	-	-	-	18
Cash Flow Hedges	57	-	66	(6)	8	-	125
Retirement Benefits and Compensated Absences	1	1	-	-	-	(2)	-
MAT Credit entitlement	402	89	-	-	-	(491)	-
Fair value measurements of financial instruments	6	-	10	-	-	-	16
Trade name	104	(4)	-	-	9	-	109
Others	34	52	-	-	2	(50)	38
	3,066	(358)	213	(6)	206	(1,289)	1,832

(₹ in Crore)

	As at April 01, 2019	Recognised in Statement of Profit and Loss	Recognised in OCI	Recognised directly in Equity	Exchange Differences	Reclass (DTL/DTA)	As at March 31, 2020
Deferred Tax Liabilities							
PP&E Depreciation and Intangible Amortisation	1,841	(4)	-	-	70	(1,294)	613
Inventory valuation reserves	151	(28)	-	-	23	-	146
Fair value measurements of financial instruments	5	17	-	-	-	(22)	-
Cash Flow Hedges	-	-	-	-	-	-	-
Others	193	(14)	-	-	23	(39)	163
	2,190	(29)	-	-	116	(1,355)	922
Net Deferred Tax Assets	876	(329)	213	(6)	90	66	910

(₹ in Crore)

	As at April 01, 2020	Additions due to Aleris Acquisition	Recognised in Statement of Profit and Loss	Recognised in OCI	Recognised directly in Equity	Exchange Differences	As at March 31, 2021
Deferred Tax Assets							
Provisions deductible for tax purposes in future period	1,214	2	(583)	(298)	-	(23)	312
PP&E Depreciation and Intangible Amortisation	77	-	27	-	-	(24)	80
Tax (losses)/benefits carry forwards, net #	235	3	131	-	-	(58)	311
Inventory valuation reserves	18	-	34	-	-	-	52
Cash Flow Hedges	125	-	-	236	16	(8)	369
Retirement Benefits and Compensated Absences	-	-	-	-	-	-	-
Fair value measurements of financial instruments	16	-	-	(10)	-	-	6
Trade name	109	-	8	-	-	(3)	114
Others	38	-	(38)	-	-	-	-
	1,832	5	(421)	(72)	16	(116)	1,244
Deferred Tax Liabilities							
PP&E Depreciation and Intangible Amortisation	613	-	(288)	-	-	(17)	308
Inventory valuation reserves	146	-	(144)	-	-	(2)	-
Cash Flow Hedges	-	-	-	-	-	-	-
Others	163	-	(104)	-	-	(10)	49
	922	-	(536)	-	-	(29)	357
Net Deferred Tax Assets	910	5	115	(72)	16	(87)	887

Tax Losses/Benefits carry forwards represents deferred income tax asset on unabsorbed depreciation carried forward under tax laws for which there is no expiry period.

ii. Deferred Tax Liabilities (Net)

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Deferred Tax Liabilities	14,036	11,858
Deferred Tax Assets	(9,543)	(7,187)
	4,493	4,671

Major components of Deferred Tax Liabilities (Net) arising on account of temporary timing differences and movement therein are given below:

(₹ in Crore)

	As at April 01, 2019	Recognised in Statement of Profit and Loss	Recognised in OCI	Recognised directly in Equity	Exchange Differences	Reclass (DTL/DTA)	As at March 31, 2020
Deferred Tax Liabilities							
PP&E Depreciation and Intangible Amortisation	8,057	232	-	91	138	1,294	9,812
Inventory Valuation Reserves	421	(23)	-	-	36	-	434
Exchange Differences on Foreign Operations	947	237	-	-	99	-	1,283
Fair value measurements of financial instruments	29	87	2	-	-	22	140
Deferred tax on Undistributed earnings	6	17	-	-	-	-	23
Cash Flow Hedges	376	-	(375)	8	-	-	9
Others	84	33	-	-	-	40	157
	9,920	583	(373)	99	273	1,356	11,858
Deferred Tax Assets							
Tax (losses)/benefits carry forwards, net #	1,881	(121)	-	-	4	746	2,510
Retirement Benefits and Compensated Absences	71	3	28	-	-	2	104
Cash Flow Hedges	-	-	-	-	-	-	-
Provisions deductible for tax purposes in future period	1,216	271	-	95	81	-	1,663
MAT Credit entitlement	2,002	151	-	-	-	491	2,644
PP&E Depreciation and Intangible Amortisation	2	(2)	-	-	-	-	-
Others	222	(6)	-	-	-	50	266
	5,394	296	28	95	85	1,289	7,187
Net Deferred Tax Liabilities	4,526	287	(401)	4	188	67	4,671

(₹ in Crore)

	As at April 01, 2020	Additions due to Aleris Acquisition	Recognised in Statement of Profit and Loss	Recognised in OCI	Recognised directly in Equity	Exchange Differences	As at March 31, 2021
Deferred Tax Liabilities							
PP&E Depreciation and Intangible Amortisation	9,812	1,709	511	-	-	(172)	11,860
Inventory Valuation Reserves	434	(44)	58	-	-	(5)	443
Exchange Differences on Foreign Operations	1,283	-	14	-	-	(38)	1,259
Fair value measurements of financial instruments	140	-	(92)	(3)	-	-	45
Deferred tax on Undistributed earnings	23	-	-	-	-	-	23
Cash Flow Hedges	9	-	-	(9)	-	-	-
Others	157	30	217	-	-	2	406
	11,858	1,695	708	(12)	-	(213)	14,036
Deferred Tax Assets							
Tax (losses)/benefits carry forwards, net #	2,510	1,154	(913)	-	-	(44)	2,707
Retirement Benefits and Compensated Absences	104	-	(11)	(19)	-	-	74
Cash Flow Hedges	-	-	-	315	1	-	316
Provisions deductible for tax purposes in future period	1,663	942	549	-	-	(92)	3,062
MAT Credit entitlement	2,644	-	449	-	-	-	3,093
Others	266	-	22	-	-	3	291
	7,187	2,096	96	296	1	(133)	9,543
Net Deferred Tax Liabilities	4,671	(401)	612	(308)	(1)	(80)	4,493

Net deferred tax liability incudes ₹ 239 crore (31/03/2020: ₹ 66 crore) pertaining to Utkal Alumina International Limited including MAT Credit entitlement of ₹ 656 crore (31/03/2020: ₹ 491 crore).

iii. Unrecognised Deferred Taxes

(a) As at March 31, 2021 the Group had cumulative earnings in respect of certain Group entities of approximately ₹ 31,544 crore (31/03/2020: ₹ 23,904 crore) for which the Group has not provided deferred tax liability as the Group believe that the reversal of such temporary difference is not probable in the foreseeable future.

(b) The following Deferred Tax Assets have not been recognised at the reporting date as it is not probable of recovery.

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Unexpiring		
i. Unabsorbed Depreciation and other expenses not deductible for tax	797	640
ii. Tax losses carry forwards	127	95
iii. Unused tax credits	547	553
Expiring		
i. Carried forward Tax losses	14,454	14,898
Period of expiry	FY 2022-41	FY 2027-39
ii. Unused tax credits	413	422
Period of expiry	FY 2021-33	FY 2020-33
iii. Long term capital loss carry forward	995	1,057
Period of expiry	FY 2021-25	FY 2020-25
iv. Unabsorbed Depreciation and other expenses not deductible for tax	8	8
Period of expiry	FY 2029	FY 2029

The Group has not recognised deferred tax asset in respect of deductible temporary differences related to its equity investments measured at FVTOCI as presently it is not probable that future taxable long term capital gain will be available in the foreseeable future to recover such deferred tax assets.

Deferred tax assets and deferred tax liabilities have been offset wherever the Group has a legally enforceable right to set-off current tax assets against current tax liabilities and where the deferred tax assets and deferred tax liabilities relate to income tax levied by the same taxation authority. The Company has not recognised deferred tax on temporary differences relating to depreciation which originate and reverse during the tax holiday period.

iv. The Taxation Law (Amendments) Ordinance 2019 ('the Ordinance'), in India provides an option to domestic companies to pay income-tax at a lower rate of 22% (plus applicable surcharge and cess) instead of the normal rate of 30% (plus applicable surcharge and cess) depending on the conditions specified in this behalf under section 115+F119BBA of the Income Tax Act, 1961. A domestic company can avail of the lower tax rate only if it opts for not availing of certain exemptions or incentives specified in this behalf in the Ordinance. There is no time limit prescribed under the above to choose the option of lower tax rate under section 115BAA, however, once chosen it is irreversible.

The Group has carried forward unabsorbed depreciation, accumulated MAT credit and tax incentives to be availed/adjusted against future taxable profits. Based on the projections prepared by the management, including its plan for future capital expenditure for capacity enhancement, the Group has determined that exercising the option of lower rate will be beneficial only from April 01, 2037. The Group has assessed that the net deferred tax liability as at March 31, 2021 would get reversed within the period for which the group is expected to continue to be in the existing tax regime. Accordingly, the Group has not made any adjustments to reverse its deferred tax liability balances as at March 31, 2021.

C. Income Tax Assets and Liabilities with Tax Authorities

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
i. Income Tax Assets (Net)		
Non-Current Tax Assets (Net)	4	329
Current Tax Assets (Net)	207	255
	211	584
ii. Income Tax Liabilities (Net)		
Current Tax Liabilities	2,116	1,576
	2,116	1,576

The Group is subject to tax assessments and ongoing proceedings, which are pending before various Tax Authorities. Management periodically evaluates the positions taken in tax returns with respect to such matters, including unresolved tax disputes, which involves interpretation of applicable tax regulations and judicial precedents. Current tax liability and tax asset balances are presented, after recognising as appropriate, provision for taxes payable and contingencies basis Management's assessment of outcome of such ongoing proceedings and amounts that may become payable to the tax authorities. Considering the nature of such estimates and uncertainties involved, the amount of such provisions may change upon final resolution of the matters with tax authorities. Also refer Note 1D.

10. Other Non-Current and Current Assets

(Unsecured, Considered Good unless otherwise stated)

(₹ in Crore)

	As at 31/03/2021		As at 31/03/2020	
	Non-Current	Current	Non-Current	Current
Capital Advance	302	-	436	-
Trade Advances and Deposits - (a)	120	653	150	861
Deposits with Government and Other Authorities	216	37	182	38
Prepaid Expenses	48	583	59	554
Others - (b)				
Unsecured, Considered Good	839	1,512	723	1,640
Unsecured, Considered Doubtful	12	120	10	138
Less : Allowance for Doubtful amount	(12)	(120)	(10)	(138)
	1,525	2,785	1,550	3,093

(a) Refer Note 42 for balances with related parties.

(b) It mainly includes unutilised tax credits and claims receivable from Indirect Tax Authorities.

11. Inventories

Refer Note 1B(N) for accounting policy on Inventories

(₹ in Crore)

	As at 31/03/2021			As at 31/03/2020		
	In Hand	In Transit	Total	In Hand	In Transit	Total
Raw Materials	4,614	5,343	9,957	2,813	2402	5,215
Work-in-Progress	13,318	121	13,439	10,033	69	10,102
Finished Goods	4,670	199	4,869	4,383	117	4,500
Stock-in-Trade	4	-	4	127	-	127
Stores and Spares	1,941	47	1,988	1,869	35	1,904
Coal and Fuel	396	14	410	449	87	536
Packing Materials	1	-	1	-	-	-
	24,944	5,724	30,668	19,674	2,710	22,384

(a) For Inventories hypothecated against secured short-term borrowings, refer Note 18B.

(b) The Group has extended fair value hedge accounting on its inventory which forms part of Work-in-Progress and Finished Goods. Fair value hedges are mainly used to hedge the exposure to change in fair value of commodity price risks. The fair value adjustment remains part of the carrying value of inventory and is taken to profit and loss when the inventory is sold or consumed. Refer Note 46(B)(a)

(c) Write down of inventories (net of reversal) to net realizable value amounted to ₹ 377 crore (31/03/2020: ₹ 267 crore). These were recognized as expense and included in 'Cost of Material Consumed' and 'Changes in Inventories of Finished Goods, Work-in-Progress and Stock-in-Trade' in the Consolidated Statement of Profit and Loss.

(d) Inventories in hand include bulk material of coal, bauxite and copper concentrate lying at yards, mines, plants, precious metals of gold and silver lying at smelter and refinery aggregating to ₹ 3,179 crore (31/03/2020: ₹ 3,255 crore).

12. Trade Receivables

Refer Note 1B(O) for accounting policy on Trade Receivable

(₹ in Crore)

	As at 31/03/2021		As at 31/03/2020	
	Non-Current	Current	Non-Current	Current
Trade Receivables:				
Secured, Considered Good	-	1,776	-	746
Unsecured, Considered Good	53	11,186	56	8,613
Unsecured, Credit Impaired	-	74	-	95
	53	13,036	56	9,454
Less: Loss Allowances - (c)	-	(77)	-	(109)
	53	12,959	56	9,345

(a) No trade or other receivable are due from directors or other officers of the Company either severally or jointly with any other person. Further no trade or other receivable are due from firms or private companies respectively in which any director is a partner, or director or member.

(b) For trade receivables hypothecated against borrowings, refer Note 18B.

(c) Loss allowances includes provision of ₹ 3 crore (31/03/2020: ₹ 14 crore) made on account of expected credit loss on Trade Receivables. Refer Note 46(A)(a)

(d) Refer Note 42 for balances with related parties.

NOTES FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS

13. Cash and Cash Equivalents

Refer Note 1B(S) for accounting policy on Cash and Cash Equivalents

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Cash on Hand	-	-
Cheques and Drafts on Hand - (a)	8	6
Balance with Banks		
Current Accounts	5,514	16,927
Deposits with Initial Maturity of less than three months	2,048	3,266
Short term Liquid Investments in Mutual Funds	769	1,104
	8,339	21,303

(a) Includes ₹ 3 crore (31/03/2020: ₹ 0.01 crore) remittance in transit.

(b) There is no repatriation restriction with regard to cash and cash equivalents as the end of reporting period and prior periods.

14. Bank Balances other than Cash and Cash Equivalents

Refer Note 1B(Q) for accounting policy on Financial Instruments

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Balances with Banks		
Earmarked balances - (a), (b)	116	12
Deposits with Initial Maturity more than three months	354	254
	470	266

(a) Includes unclaimed dividend of ₹ 4 crore (31/03/2020: ₹ 5 crore).

(b) It also includes an amount of ₹ 102 crore (31/03/2020: ₹ Nil) deposited in an account restricted for repayment of an unsecured term loan.

15. Non-Current Assets or Disposal Group Classified as Held for Sale

Refer Note 1B(H) for accounting policy on Non-Current assets (or Disposal Groups) Held for Sale

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
A. Assets or Disposal Group Classified as Held for Sale		
Non-Current Assets classified as held for sale - (a)	41	42
Assets of Disposal Group classified as held for sale - (b)	111	68
	152	110

(a) As at March 31, 2021 assets held for sale relate to one of the hydroelectric power generation facilities in South America, Brecha, land and building of Binh Duong plant in Vietnam and land in Ludensheid, Germany. (refer Note 34 (c) for reversal of impairment)

(b) Details of Assets of Disposal Group classified as held for sale

Land and Building	1	25
Plant and Equipment	3	41
Other Assets - (i)	107	2
	111	68

(i) Current year amount represents assets of discontinued operation classified as held for sale. - (refer Note 50)

(ii) During the current year the group has recognised impairment loss of ₹ 25 Crore on Assets which are held for disposal. - (refer Note 34)

(iii) During the year, the Group, based on future utilisation plan, has reclassified certain assets to Property, Plant and equipment which were kept as Assets of Disposal Group Held for Sale. - (refer Note 2A)

(iv) The Group is in the process of disposing the above assets.

(v) The fair value of the assets held for sale approximates the carrying value.

B. Liability Associated with Disposal Group Classified as Held for Sale

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Liabilities associated with Disposal Group classified as held for Sale - (a)	119	-
	119	-

(a) Current year amount represents liabilities of discontinued operation classified as held for sale. - (refer Note 50)

16. Equity Share Capital

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Authorized		
2,500,000,000 (31/03/2020 : 2,500,000,000) Equity Shares of ₹ 1/- each	250	250
25,000,000 (31/03/2020: 25,000,000) Redeemable Cumulative Preference Shares of ₹ 2/- each	5	5
	255	255
Issued		
2,247,237,893 (31/03/2020: 2,246,776,333) Equity Shares of ₹ 1/- each - (a)	225	225
	225	225
Subscribed and Paid-up		
2,247,230,496 (31/03/2020: 2,246,768,936) Equity Shares of ₹ 1/- each fully paid-up	225	225
Less: Face value of 546,249 (31/03/2020: 546,249) Equity Shares forfeited	-	-
Add: Forfeited Shares (Amount originally Paid-up)	-	-
	225	225
Less: Treasury Shares		
16,316,130 (31/03/2020: 16,316,130) Equity Shares held as Treasury Shares - (b)	(2)	(2)
5,824,965 (31/03/2020: 5,885,672) Equity Shares held as Treasury Shares by ESOP Trust - (c)	(1)	(1)
	222	222

(a) Issued Equity Share Capital as at 31/03/2021 includes 7,397 Equity Shares (31/03/2020: 7,397) of ₹ 1/- each issued on Rights basis kept in abeyance due to legal case pending.

(b) Treasury shares include shares held by Trident Trust which represents 16,316,130 equity shares (31/03/2020: 16,316,130 Equity Shares) of ₹ 1/- each fully paid-up of the Company issued, pursuant to a Scheme of Arrangement approved by the Hon'ble High Courts of Mumbai and of Allahabad, vide their Orders dated October 31, 2002, and November 18, 2002, respectively, to the Trident Trust, created wholly for the benefit of the Company and is being managed by trustees appointed by it. The tenure of the Trust is up to January 23, 2024.

(c) Treasury shares include shares held by Hindalco Employee Welfare Trust which represents 5,824,965 equity shares (31/03/2020: 5,885,672 Equity Shares) of ₹ 1/- each fully paid up of the Company. The Trust buys shares of the Company from the market, for giving shares to employees pursuant to the Employees Stock Option Scheme, 2018. - (refer Note 17(A)(vii))

(d) Reconciliation of shares outstanding at the beginning and at the end of the reporting period:

	As at			
	31/03/2021		31/03/2020	
	Numbers	₹ in Crore	Numbers	₹ in Crore
Equity Shares outstanding at the beginning of the period	2,224,020,885	222	2,223,655,388	222
Equity Shares allotted pursuant to exercise of Employee Stock Option Scheme (ESOS)	461,560	-	692,442	-
Equity shares purchased from market pursuant to ESOS	-	-	(326,945)	-
Equity shares allotted pursuant to exercise of ESOS through Hindalco Employee Welfare Trust	60,707	-	-	-
Equity Shares outstanding at the end of the period	2,224,543,152	222	2,224,020,885	222

(e) Rights, preferences and restrictions attached to Equity Shares:

The Company has one class of equity shares having a par value of ₹ 1/- per share. Each shareholder is eligible for one vote per share held. The dividend proposed by the Board of Directors is subject to the approval of the shareholders in the ensuing Annual General Meeting, except in case of interim dividend. In the event of liquidation, the equity shareholders are eligible to receive the remaining assets of the Company after distribution of all preferential amounts, in proportion to their shareholding.

(f) Details of shareholders holding more than 5% Equity Shares in the Company on reporting date:

	As at			
	31/03/2021		31/03/2020	
	Numbers of Shares held	Percentage of Holding *	Numbers of Shares held	Percentage of Holding *
IGH Holdings Private Limited	349,963,487	15.58%	349,963,487	15.58%
Birla Group Holdings Private Limited	228,292,308	10.16%	228,292,308	10.16%
Life Insurance Corporation of India and its Associates	203,135,624	9.04%	223,822,083	9.96%
ICICI Prudential Mutual Fund and its Associates	106,493,086	4.74%	181,533,867	8.08%
Morgan Guaranty Trust Company of New York	151,010,943	6.72%	149,888,482	6.67%

* Percentage have been calculated on the basis of total number of shares outstanding before adjusting shares held by Trident Trust and ESOP Trust. Refer footnote (b) and (c) above and Note 17 (A) (vii)).

(g) Shares reserved for issue under options:

The Company has reserved equity shares for issue under the Employee Stock Option Schemes. (Refer Note 41 for details of Employee Stock Option Scheme).

(h) The Company during the preceding 5 years:

i. Has not allotted shares pursuant to contracts without payment received in cash.

ii. Has not issued shares by way of bonus shares.

iii. Has not bought back any shares.

(i) The Board of Directors of the Company has recommended final dividend of ₹ 3.00 per share aggregating to ₹ 674 crore for the year ended March 31, 2021 which has not been recognised in the Consolidated Financial Statement.

17. Other Equity

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Share Application Money pending Allotment	-	-
Equity Component of Other Financial Instruments	4	4
Reserve and Surplus		
Capital Reserve	147	147
Capital Redemption Reserve	104	104
Business Reconstruction Reserve	5,799	5,799
Securities Premium	8,225	8,218
Debenture Redemption Reserve	1,350	1,200
Employees Stock Options	54	44
Treasury Shares held by ESOP Trust	(129)	(130)
Special Reserve	20	19
General Reserve	21,370	21,370
Retained Earning	22,777	18,806
	59,717	55,577
Other Reserves		
Gain/ (Loss) on Equity Instruments FVTOCI	4,673	325
Gain/ (Loss) on Debt Instruments FVTOCI	1	7
Effective portion of Cash Flow Hedge	(1,246)	(130)
Cost of Hedging Reserve	10	119
Foreign Currency Translation Reserve	3,152	2,193
	6,590	2,514
	66,311	58,095

(A) Brief description of items of Other Equity are given below:

(i) **Capital Reserve:**

The Group has created capital reserve pursuant to past mergers and acquisitions.

(ii) **Capital Redemption Reserve:**

The Group has created capital redemption reserve as per the requirement of the Companies Act.

(iii) **Business Reconstruction Reserve**

The Company had formulated a scheme of financial restructuring under sections 391 to 394 of the Companies Act 1956 ("the Scheme") between the Company and its equity shareholders approved by the High Court of judicature of Bombay to deal with various costs associated with its organic and inorganic growth plan. Pursuant to this, a separate reserve account titled as Business Reconstruction Reserve ("BRR") was created during the year 2008-09 by transferring balance standing to the credit of Securities Premium Account of the Company for adjustment of certain expenses as prescribed in the Scheme.

(iv) **Securities Premium:**

Securities premium reserve is used to record the premium on issue of shares. The reserve is utilized in accordance with the provision of the Act.

(v) **Debenture Redemption Reserve:**

The Group is required to create a debenture redemption reserve out of the profits which is available for payment of dividend, for the purpose of redemption of debentures.

(vi) **Employees Stock Options:**

The employee stock option account is used to recognize the grant date fair value of options issued to employees under stock option schemes.

(vii) **Treasury Shares held by ESOP Trust**

The Company has created a trust. "Hindalco Employee Welfare Trust"(Trust) for providing share-based payments to its employees (including its Subsidiaries' employees). The Company uses this Trust as a vehicle for distributing shares to employees covered under Scheme. The Trust buys shares of the Company from the market, for giving shares to employees under the Employees Stock Option Scheme, 2018.

Shares held by the Trust are treated as Treasury shares. Equity instruments that are reacquired (treasury shares) are recognised at cost and deducted from equity. No gain or loss is recognised in the Consolidated Statement of Profit and Loss on purchase, sale, issue or cancellation of Equity instruments. Share options whenever exercised, would be utilised from these treasury shares. Refer Note 41

(viii) **Special Reserve**

Certain subsidiaries of the Group are registered as non-banking financial company and as per requirement of Section 45-IC of the Reserve Bank of India Act, 1934 every non-banking financial company shall create a reserve fund and transfer therein a sum not less than twenty per cent of its net profit every year as disclosed in the profit and loss account and before any dividend is declared.

(ix) **General Reserve**

The Group has created this reserve by transferring certain amount out of the profit at the time of distribution of dividend in the past.

(x) **Retained Earnings**

Amount of retained earnings represents accumulated profit and losses of the Group as on reporting date. Such profits and losses are after adjustment of payment of dividend, transfer to any reserves as statutorily required and adjustment for realised gain/loss on derecognition of equity instruments measured at FVTOCI. Actuarial Gain/ Loss arising out of Actuarial valuation is immediately transferred to Retained Earning.

(xi) **Other Reserve**

a) **Gain/(Loss) on equity and debt instruments accounted as FVTOCI**

The Group has elected to recognize changes in the fair value of certain investments in other comprehensive income. These changes are accumulated within the FVTOCI equity investments reserve and FVTOCI debt investment reserve within equity.

b) **Effective portion of Cash Flow Hedge**

The Group uses hedging instruments as part of its risk management policy for commodity and foreign currency risk as described in Note 46. The Cash Flow hedging reserve is used to recognise the effective portion of gain or loss on designated hedging relationship. (Refer Note 46 (E) and 46 (F) (i)).

c) **Cost of Hedging Reserve**

The Group designates the spot component of cross currency interest rate swap as hedging instruments in cash flow hedge relationship. The Group defers changes in the forward element of cross currency interest rate swap in the cost of hedging reserve. The deferred cost of hedging are included in the initial cost of the related hedged items when it is recognized or reclassified to the consolidated statement of profit or loss when the hedged item effects the consolidated statement of profit and loss. The Group also designates intrinsic value of option contracts and the time value of option contracts is included in the cost of hedging reserve. (Refer Note 46 (E) and 46 (F) (ii)).

d) **Foreign Currency Translation Reserve**

Foreign Currency Translation reserve includes all resulting exchange differences arising from (a) translating the assets and liabilities of the Group's foreign operations into Indian Rupees using exchange rates prevailing at the end of each reporting period and (b) translating income and expense items of the foreign operations at the average exchange rates for the period.

(B) Movement of each item of other equity is presented in Consolidated Statement of Changes in Equity (SOCE).

18A. Borrowings, Non-Current

Refer Note 1B(Q) for accounting policy on Financial Instruments

(₹ in Crore)

Particulars	As at 31/03/2021 Non-Current Portion	31/03/2021 Current Maturities #	31/03/2021 Total	As at 31/03/2020 Non-Current Portion	31/03/2020 Current Maturities #	31/03/2020 Total
Secured						
Non Convertible Debentures-(a)	5,997	-	5,997	5,994	-	5,994
Term Loans:						
From Banks						
Rupee Term Loans - (b)	11,731	8	11,739	11,613	6	11,619
Foreign Currency Term Loans - (c)	14,111	916	15,027	17,465	136	17,601
	31,839	924	32,763	35,072	142	35,214
Unsecured						
Senior Notes - (d)	26,581	-	26,581	22,997	-	22,997
Term Loans:						
From Banks						
Foreign Currency Term Loans - (e)	541	22	563	270	2	272
Deferred Payment Liabilities - (f)	24	18	42	40	17	57
	27,146	40	27,186	23,307	19	23,326
	58,985	964	59,949	58,379	161	58,540

Current maturities of non-current borrowings have been disclosed under "Other Financial Liabilities, Current"

(a) Debentures comprise of following:

(₹ in Crore)

	As at 31/03/2021 Gross Amount	31/03/2021 Carrying Value	As at 31/03/2020 Gross Amount	31/03/2020 Carrying Value	Redemption Date
30,000 9.55% Redeemable Non Convertible Debentures of ₹ 10 lakhs each	3,000	2,999	3,000	2,999	25/04/2022
15,000 9.55% Redeemable Non Convertible Debentures of ₹ 10 lakhs each	1,500	1,499	1,500	1,497	27/06/2022
15,000 9.60% Redeemable Non Convertible Debentures of ₹ 10 lakhs each	1,500	1,499	1,500	1,498	02/08/2022
	6,000	5,997	6,000	5,994	

All the above Debentures are secured by all the moveable items of Property, Plant and Equipment, both present and future (except moveable assets of Mahan Aluminium Project, Aditya Aluminium Project, Kalwa plant and Current Assets) and certain immoveable properties of the Parent. - (refer Note 2A)

(b) **Secured Rupee Term Loans from Banks comprise of following:**

(₹ in Crore)

	Footnote	As at 31/03/2021 Gross Amount	As at 31/03/2021 Carrying Value	As at 31/03/2020 Gross Amount	As at 31/03/2020 Carrying Value	Redemption Date
Axis Bank - (Repo Rate + 275 bps*)	(i)	619	610	619	613	31-03-2030
State Bank of India - (MCLR 3 Month + 10 bps)	(i)	2,239	2,227	2,239	2,227	31-03-2030
ICICI Bank - (3 Month T bill + 357 bps #)	(i)	84	84	90	90	31-03-2030
State Bank of India - (MCLR 3 Month + 10 bps)	(ii)	4,672	4,657	4,672	4,657	01-09-2030
PNB Bank - (MCLR 1 Month + 5 bps #)	(ii)	256	254	256	255	01-09-2030
Axis Bank - (MCLR 1 Month*)	(ii)	1,371	1,352	1,371	1,361	01-09-2030
Axis Bank - (Policy Repo Rate+275 bps/ SBI 3M MCLR+10 bps/ Axis Bank 1M MCLR)	(iii)	635	626	635	632	30-09-2030
State Bank of India - (MCLR 3 Month + 10 bps)	(iii)	1,789	1,779	1,789	1,784	30-09-2030
State Bank of India - (MCLR 3 Month + 15 bps)	(iii)	150	150	-	-	30-09-2030
		11,815	11,739	11,671	11,619	

Definition of abbreviation used

- 100 basis points (bps) is equal to 1%
- Repo rate is the rate at which RBI lends funds to commercial banks
- Marginal Cost of funds based Lending Rate (MCLR) is a tenor-linked internal benchmark rate of respective bank
- Repo rate is the rate at which RBI lends funds to commercial banks
- Treasury Bill (T-bill) means the rate of interest published by the Financial Benchmarks India Pvt. Ltd. ("FBIL").

* Benchmark changed w.e.f. Oct 2020. Previous benchmark was MCLR 1 Month

Benchmark changed w.e.f. Dec 2020. Previous benchmark was MCLR 3 Month

(i) Rupee Term Loans of Mahan Unit: The term loans from banks of ₹ 2,942 crore (carrying amount: ₹ 2,921 crore) are secured by a first ranking charge/ mortgage/ security interest in respect of all the moveable Property, Plant and Equipment and and all the immoveable properties of Mahan Aluminium Project, both present and future. ₹ 2,858 crore (carrying value: ₹ 2,837 crore) is to be repaid in 16 quarterly instalments commencing from June 2,026. ₹ 84 crore (carrying value: ₹ 84 crore) is to be repaid in 36 quarterly instalments.

(ii) Rupee Term Loans of Aditya Unit: The term loans from banks of ₹ 6,299 crore (carrying value: ₹ 6,263 crore) is secured by a first ranking charge/ mortgage/security interest in respect of all the moveable and immovable Property, Plant and Equipment of Aditya Aluminium Project both present and future. ₹ 6,299 crore is to be repaid in 26 quarterly instalments commencing from May 2024.

(iii) The term loan from banks in Group's subsidiary Utkal Alumina International Limited (Utkal) of ₹ 2,574 crore (carrying value ₹ 2,555 crore), is secured by (a) first ranking pari passu mortgage/ Security Interest in respect of all the immovable properties (excluding the forest land and land surrendered for rehabilitation and resettlement colony) (b) first ranking charge on movable assets (including movable machinery, machinery spares, tools and accessories) both present and future, pertaining to the project (c) second charge on the current assets of Utkal (excluding cash and cash equivalents and investments) both present and future.

This includes term loans of ₹ 2,424 crore (carrying value ₹ 2,405 crore), are repayable in 60 quarterly instalments as per the agreed repayment schedule commenced from December 31, 2015. During the year ended March 31, 2018, Utkal has prepaid all instalments of the loan due up to June & September 30, 2025 to respective banks. The balance principal would be paid as per remaining schedule in quarterly instalments up to September 30, 2030.

The term loans of ₹ 150 crore (carrying value ₹ 150 crore), is repayable in 34 structured quarterly installments starting from 18th month from the date of first drawdown.

(c) **Secured Foreign Currency Term Loans from Banks comprise of following:**

i. **Foreign currency term loan from Bank of Tokyo Mitsubishi (BTMU)**

Foreign currency term loan includes term loan from Bank of Tokyo Mitsubishi (BTMU) of USD 40 million (gross ₹ 293 crore, carrying value ₹ 291 crore) and USD 22.79 million (gross ₹ 167 crore, carrying value ₹ 166 crore). BTMU loan is secured by a pari-passu first charge on all movable Property, Plant and Equipment of Mahan Aluminium Project, both present and future. The loans were to be repaid in a single instalment at the end of the tenure. However, before the year end, the Company has served a notice to prepay USD 62.79 Millions in April 2021. Accordingly, this loan has been classified as Current as on March 31, 2021.

ii. **Floating rate Term Loan facility**

In January 2017, Novelis borrowed ₹ 13,167 Crore (USD 1.8 billion) of term loans (the "2017 Term Loans") under its Term Loan Facility. The 2017 Term Loans mature on June 2, 2022 and are subject to 0.25% quarterly amortization payments. The existing loans under the Term Loan Facility accrue interest at LIBOR plus 1.85%

In April 2020, Novelis Acquisitions LLC borrowed ₹ 5,892 Crore (USD 775 million) under the Novelis' existing secured term loan credit agreement ("Term Loan Facility") prior to its merger into Aleris Corporation. The proceeds of the incremental term loans were used to pay a portion of the consideration payable in the acquisition of Aleris (including the repayment of Aleris' outstanding indebtedness) as well as fees and expenses related to the acquisition, and the incremental term loans. The incremental term loans will mature on January 21, 2025, subject to 0.25% quarterly amortization payments. The incremental term loans accrue interest at LIBOR (as defined in the Term Loan Facility) plus 1.75%.

In March 2021, Novelis borrowed ₹ 3,649 Crore (USD 480 million) of term loans (the "2021 Term Loans") under its Term Loan Facility. The 2021 Term Loans mature on March 31, 2028 and are subject to 0.25% quarterly amortization payments. The existing loans under the Term Loan Facility accrue interest at LIBOR plus 2%. The proceeds of the 2021 Term Loans were applied to refinance a portion of the 2017 Term Loans. After giving effect to such refinancing, principal amounts of ₹ 4,927 Crore (USD 648 million) of the 2017 Term Loans, ₹ 5,832 Crore (USD 767 million) of the 2020 Term Loans, and ₹ 3,649 Crore (USD 480 million) of the 2021 Term Loans were outstanding as of March 31, 2021. It has incurred ₹ 68 Crore (USD 9 million) in debt issuance costs related to the issuance of the 2021 Term Loans, which will be amortized as an increase to interest expense and amortization of debt issuance costs over the term of the note.

As a result of this partial repayment of its 2017 Term Loans, the Group has recognized ₹ 62 Crore (USD 8 million) of loss on extinguishment of debt in Consolidated statement of profit and loss for year ended March 31, 2021 (Refer Note 32). Subsequent to March 31, 2021, Novelis borrowed an additional ₹ 152 Crore (USD 20 million) on the 2021 Term Loans, bringing the total principal borrowed under the 2021 Term Loans to ₹ 3,802 (USD 500 million). The proceeds of these additional borrowings were applied to refinance a portion of the 2017 Term Loans.

The Term Loan Facility requires customary mandatory prepayments with excess cash flow, other asset sale proceeds, casualty event proceeds and proceeds of prohibited indebtedness, all subject to customary reinvestment rights and exceptions. The loans under the Term Loan Facility may be prepaid, in full or in part, at any time at Novelis' election without penalty or premium. The Term Loan Facility allows for additional term loans to be issued in an amount not to exceed ₹ 2,281 Crore (UDS 300 million) (or its equivalent in other currencies) plus an unlimited amount if, after giving effect to such incurrences on a pro forma basis, the secured net leverage ratio does not exceed 3.00 to 1.00. The Term Loan Facility allows for additional term loans to be issued in an amount to refinance loans outstanding under the Term Loan Facility. The lenders under the Term Loan Facility have not committed to provide any such additional term loans.

As of March 31, 2021 the outstanding amount on 2017 Term Loan Facility along with incremental term loan facility is ₹ 10,198 Crore (USD 1.4 billion) net of debt issuance cost of ₹ 176 Crore (USD 24 million) and amount outstanding on 2021 Term Loan Facility is ₹ 3,447 Crore (USD 471.2 million) net of debt issuance ₹ 64 Crore (USD 8.8 million).

Zhenjiang Loans

Through the acquisition of Aleris on April 14, 2020, Novelis assumed ₹ 1,078 Crore (USD 142 million) in debt borrowed by Aleris Aluminum (Zhenjiang) Co., Ltd. ("Aleris Zhenjiang") under a loan agreement comprised of non-recourse multi currency secured term loan facilities and a revolving facility (collectively the "Zhenjiang Loans"), which consisted of a ₹ 221 Crore (USD 29 million) U.S. dollar term loan facility, a ₹ 852 Crore (USD 112 million) Renminbi term loan facility (collectively, the "Zhenjiang Term Loans") and a revolving facility (the "Zhenjiang Revolver"). The Zhenjiang Revolver has certain restrictions that have limited Novelis's ability to borrow funds on the Zhenjiang Revolver and will continue to limit Novelis' ability to borrow funds in the future. All borrowings under the Zhenjiang Revolver mature May 18, 2021.

As of March 31, 2021, there is no amounts outstanding under the Zhenjiang Revolver. The Zhenjiang Loans contain certain customary covenants and events of default. The Zhenjiang Loans require Aleris Zhenjiang to, among other things, maintain a certain ratio of outstanding term loans to invested equity capital.

The interest rate on the U.S. dollar term facility is six month U.S. dollar LIBOR plus 5.0% and the interest rate on the RMB term facility and the Zhenjiang Revolver is 110% of the base rate applicable to any loan denominated in RMB of the same tenor, as announced by the People's Bank of China. As of March 31, 2021, ₹ 925 Crore (USD 126 million) was outstanding on the Zhenjiang Term Loans and the final maturity date for all borrowings is May 16, 2024. The repayment of borrowings under the Zhenjiang Term Loans is due semi-annually.

(d) **Unsecured Senior Notes comprise of following:**

On September 14, 2016, Novelis Corporation, an indirect wholly owned subsidiary of Novelis Inc., issued USD ₹ 10,972 Crore (USD 1.5 billion) in aggregate principal amount of 5.875% Senior Notes Due 2026 (the "2026 Senior Notes"). As of March 31, 2021 the outstanding amount on 2026 Senior Notes is ₹ 10,873 Crore (USD 1.5 billion) net of debt issuance cost of ₹ 99 Crore (USD 14 million). The interest rate on the 2026 Notes is 5.875% and are due in September 2026.

In January 2020, Novelis Corporation, issued ₹ 11,704 Crore (USD 1.6 billion) in aggregate principal amount of 4.75% Senior Notes due 2030 (the "2030 Senior Notes"). The proceeds were used to refinance all of Novelis Corporation's 6.25% Senior Notes due 2024 and the remainder was utilized to pay a portion of the consideration for the acquisition of Aleris, which closed on April 14, 2020. The 2030 Senior Notes are subject to semi-annual interest payments and mature on January 30, 2030. As of March 31, 2021 the outstanding amount on 2030 Senior Notes is ₹ 11,500 Crore (USD 1.6 billion) net of debt issuance cost of ₹ 204 Crore (USD 28 million).

In March 2021, Novelis Sheet Ingot GmbH, an indirect wholly owned subsidiary of Novelis Inc., organized under the laws of Ireland, issued ₹ 4,299 Crore (€ 500 million) in aggregate principal amount 3.375% Senior Notes due 2029 (the "2029 Senior Notes" and together with the 2026 Senior Notes and the 2030 Senior Notes, the "Senior Notes"). The 2029 Senior Notes are subject to semi-annual interest payments and mature on April 15, 2029. The proceeds were used to pay down a portion of the 2017 Term Loans, plus accrued and unpaid interest. In addition, Novelis intend to allocate an amount equal to the net proceeds received from this issuance to finance and/or refinance new and/or existing eligible green projects, which are currently contemplated to consist of renewable energy or pollution prevention and control type projects. Novelis incurred ₹ 91 Crore (USD 12.5 million) in debt issuance costs related to the issuance of the 2029 Senior Notes, which will be amortized as an increase to interest expense and amortization of debt issuance costs over the term of the note. As of March 31, 2021 the outstanding amount on 2029 Senior Notes is ₹ 4,208 Crore (USD 575.30 million) net of debt issuance cost of ₹ 91 Crore (USD 12.5 million).

The Senior Notes are guaranteed, jointly and severally, on a senior unsecured basis, by Novelis Inc. and certain of its subsidiaries. The Senior Notes contain customary covenants and events of default that will limit our ability and, in certain instances, the ability of certain of its subsidiaries to (1) incur additional debt and provide additional guarantees, (2) pay dividends or return capital beyond certain amounts and make other restricted payments, (3) create or permit certain liens, (4) make certain asset sales, (5) use the proceeds from the sales of assets and subsidiary stock, (6) create or permit restrictions on the ability of certain of Novelis' subsidiaries to pay dividends or make other distributions to Novelis, (7) engage in certain transactions with affiliates, (8) enter into sale and leaseback transactions, (9) designate subsidiaries as unrestricted subsidiaries and (10) consolidate, merge or transfer all or substantially all of Novelis' assets and the assets of certain of its subsidiaries. During any future period in which either Standard & Poor's Ratings Group, Inc. or Moody's Investors Service, Inc. have assigned an investment grade credit rating to the Notes and no default or event of default under the indenture has occurred and is continuing, most of the covenants will be suspended. The Notes include a cross-acceleration event of default triggered if (1) any other indebtedness with an aggregate principal amount of more than ₹ 732 crore (USD 100 million) is (1) accelerated prior to its maturity or (2) not repaid at its maturity. The Senior Notes also contain customary call protection provisions for our bondholders that extend through September 2024 for the 2026 Senior Notes and January 2028 for the 2030 Senior Notes.

(e) **Unsecured Foreign Currency Term Loan from Banks comprise of following:**

Bank of China Term Loan

In September 2019, Novelis entered into a credit agreement with the Bank of China to provide up to CNY 500 million in unsecured loans to support previously announced capital expansion projects in China. As of March 31, 2021 the outstanding amount of this loan is ₹ 557 Crore (USD 76 million). This loan carries interest rates of 4.90%.

Banco Daycoval Loan

Hindalco Do Brasil Industria Comercia de Alumina Ltda., a wholly owned subsidiary of the Group has two term loan agreements with Banko Doval in Brasil. These loans were guaranteed by receivables. the loan carries a rate of interest of 0.85% p.a. and the amount ₹ 6 crore (USD 0.08 million) is to be paid in 42 installments.

(f) **Deferred Payment Liabilities**

Deferred payment liabilities include deferred purchase payments on Acquisition of AluInfra Asset at Novelis. On July 23, 2018, Novelis Switzerland, an indirectly wholly owned subsidiary of Novelis Inc. acquired real and personal property from Constellium Valais SA for ₹ 1,821 Crore (USD 249 million). Out of total purchase price, ₹ 42 Crore (USD 5.8 million) is to be paid over a period of 4 years through July 2023. This facility carries interest rates of 7.5%.

(g) **Short Term Credit Agreement**

In April 2020, Novelis Holdings Inc. borrowed a ₹ 8,363 Crore (USD 1.1 billion) short term loan under its existing credit agreement (the "Short Term Credit Agreement") for purposes of funding a portion of the consideration payable in connection with the acquisition of Aleris. As of March 31, 2021, the short term loan has been repaid in full, and the restrictions under the Short Term Credit Agreement are no longer in effect. The short term loans was not subject to any amortization payments and accrued interest at LIBOR (as defined in the Short Term Credit Agreement) plus 0.95%. The short term loan was guaranteed by the same entities that have provided guarantees under the Term Loan Facility and ABL Revolver. The Short Term Credit Agreement contained voluntary prepayment provisions, affirmative and negative covenants, and events of default substantially similar to those under the Term Loan Facility, other than changes to reflect the unsecured nature of the short term loan.

In August 2020, Novelis entered into an amendment (the "Short Term Credit Agreement Amendment") to its existing Short Term Credit Agreement to exten the maturity of the facility from April 13, 2021 (the "Original Short Term Maturity Date") to April 13, 2022 (the "Extended Short Term Maturity Date"). This resulted in modification loss (included in "Finance Cost") of ₹ 62 Crore (USD 8 Million).

During the year ₹ 8,046 Crore (USD 1.1 billion) in principal prepayments was made, this resulted in loss on extinguishment of debt amounting to ₹ 63 Crore (USD 8 million) (included in "Finance cost") and gain of ₹ 18 Crore (USD 2.4 million) (included in "Other Income") due to modification of cash flows. As of March 31, 2021 there is no outstanding amount on the Short Term Credit Agreement.

(h) **Changes in Liabilities arising from Financing Activities:**

(₹ in Crore)

Particulars	Liabilities from financing activities				Total
	Non Current Borrowings	Current Borrowings	Lease Obligations	Supplier's Credit	
Balance as at April 01, 2019 #	**48,991**	**4,261**	**51**	**-**	**53,303**
Recognised on Adoption of Ind AS 116	-	-	956	-	956
Cash Flows (Net)	7,226	4,054	(334)	-	10,946
Additions	-	-	447	-	447
Foreign Exchange Adjustments	3,121	431	131	-	3,683

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(₹ in Crore)

Particulars	Liabilities from financing activities				Total
	Non Current Borrowings	Current Borrowings	Lease Obligations	Supplier's Credit	
Fair Value Changes - (refer Note 26 (d))	(20)	-	-	-	(20)
Debt Issuance Costs and Amortisation (Net)	56	-	-	-	56
Interest Expense **	3,785	242	55	-	4,082
Interest Paid **	(3,703)	(232)	(49)	-	(3,984)
Disposal/Modification/Reassessment	-	-	(115)	-	(115)
Other Changes/Reclassification	3	6	-	-	9
Balance as at March 31, 2020 #	**59,459**	**8,762**	**1,142**	**-**	**69,363**
Cash Flows (Net)	(2,915)	2,020	(331)	255	(971)
Additions	-	-	385	-	385
Foreign Exchange Adjustments	(1,254)	(126)	38	-	(1,342)
Fair Value Changes - (refer Note 26 (d))	(87)	(30)	-	-	(117)
Debt Issuance Costs and Amortisation (Net)	68	-	-	-	68
Interest Expense **	3,569	252	56	-	3,877
Interest Paid **	(3,581)	(278)	(51)	-	(3,910)
Disposal/Modification/Reassessment	-	-	(135)	-	(135)
Changes in Liabilities Assumed on Acquisition	1,078	-	124	-	1,202
Reclassification	4,484	(4,484)	-	-	-
Other Changes	3	(68)	-	-	(65)
Balance as at March 31, 2021 #	**60,824**	**6,048**	**1,228**	**255**	**68,355**

Borrowing include Interest accrued on borrowings and current maturities of related borrowings.

** Interest expenses and interest paid relates to borrowings and lease liabilities before interest capitalisation.

18B. Borrowings, Current

Refer Note 1B(Q) for accounting policy on Financial Instruments

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Secured		
Loans from Banks		
Rupee Loans - (a), (b), (c) & (e)	7	1,118
Foreign Currency Loans - (g)	651	6
Loans from Others		
Foreign Currency Loans - (d)	2	3
	660	1,127

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Unsecured		
Loans from Banks		
Rupee Loans - (e)	40	1,302
Foreign Currency Loans - (f)	5,329	6,288
Loans from Others		
Rupee Loans	-	-
	5,369	7,590
	6,029	8,717

(a) Working Capital loan for Aluminium business, granted under the Consortium Lending Arrangement, are secured by a first pari-passu charge on entire stocks of raw materials, work-in-process, finished goods, consumable stores and spares and also book debts pertaining to the Company's Aluminium business, both present and future. Working Capital loan for the Copper business is secured by a first pari passu charge on stocks of raw materials, work-in-process, finished goods and consumable stores and spares and also book debts and other moveable assets of Copper business, both present and future.

(b) Cash Credit facilities for Utkal Alumina International Limited (Utkal) with banks are availed under the consortium lending arrangement and are secured by (a) first pari-passu charge by hypothecation of investments classified as "held for trading", entire stocks of raw materials, semi-finished and finished goods, consumable stores and spares, investments classified as "available for sale", stock-in trade and book debts pertaining to Utkal's business, both present and future and (b) second charge on Utkal's fixed assets. The borrowings carry floating interest rate at MCLR (ranging from 3 months to one year) + Spread (ranging from 25 bps to 55 bps).

(c) Secured Rupee Loan includes amount received from Banks under Special Banking Arrangement where banks pay on behalf of Government of India, amount related to Fertiliser Subsidy Receivables and Government of India pay directly to Banks. The loan carry interest rate of 7.35% p.a.

(d) Payable under trade financing arrangements in Novelis Inc.

(e) Represents loan taken to meet the Company's working capital requirements. The loan carry interest rate of 3.31% p.a.

(f) Includes ₹ 4,245 crore (31/03/2020: ₹ 4,967 crore) unsecured Foreign currency loans from Indian Banks and Foreign banks, mainly in nature of Buyers credit which has been availed for Copper business to meet its working capital requirement, mostly to settle the import payments of copper concentrate and certain other raw materials. The loan carry interest rate of 1M to 6M LIBOR + 20 to 40 bps. - Refer Note 46B (c) on non-derivative financial instruments used as hedging instruments.

(g) Foreign Currency Loans represents amount of ABL Revolver credit facility in Novelis. The loan carry interest rate of 1.75% p.a.

As of March 31, 2021, the revolver had an outstanding balance of ₹ 651 Crore (USD 89 million); and ₹ 296 Crore (USD 40 million) was utilized for letters of credit. There was ₹ 7,799 Crore (USD 1,066 million) in remaining availability, including ₹ 984 Crores (USD 135 million) of remaining availability that can be utilized for letters of credit.

19. Supplier's Credit

(₹ in Crore)

	As at 31/03/2021		As at 31/03/2020	
	Non-Current	Current	Non-Current	Current
Supplier's Credit	-	255	-	-
	-	255	-	-

(a) Supplier's Credit represents the extended interest bearing credit offered by the supplier which is secured against Usance Letter of Credit (LC). Under this arrangement, the supplier is eligible to receive payment from negotiating bank prior to the expiry of the extended credit period. The interest for the extended credit period payable to the bank on maturity of the LC has been presented under Finance Cost.

20. Trade Payables

Refer Note 1B(P) for accounting policy on Trade and Other Payables

(₹ in Crore)

	As at			
	31/03/2021		31/03/2020	
	Non-Current	Current	Non-Current	Current
Micro and Small Enterprises	-	58	-	20
Other than Micro and Small Enterprises	-	28,222	-	18,280
	-	28,280	-	18,300

(a) Refer Note 42 for balances with related parties.

21. Other Financial Liabilities

Refer Note 1B(Q) for accounting policy on Financial Instruments

A. Other Financial Liabilities, Non-Current

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Liability for Capital Expenditure	4	5
Security and Other Deposits	2	2
Others - (a)	127	72
	133	79

(a) Mainly includes employee liabilities of ₹ 120 crore (31/03/2020: ₹ 68 crore)

B. Other Financial Liabilities, Current

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Derivative Matured, pending settlement	546	433
Current Maturities of Long-term Borrowings	964	161
Interest Accrued but not due	894	964
Liability for Capital Expenditure	953	1,222
Security and other Deposits	33	30
Investor Education and Protection Fund		
Unclaimed Dividends - (a)	5	5
Debentures - (b)	3	3
Others	97	148
	3,495	2,966

(a) These amounts do not include any amount, due and outstanding, to be credited to 'Investor Education and Protection Fund' except ₹ 0.31 crore (31/03/2020: ₹ 0.28 crore) which is held in abeyance due to legal cases pending.

(b) In terms of Debenture Subscription Agreement between Utkal Alumina International Limited ('UAIL'), a wholly owned subsidiary of the Group, and Orissa Mining Corporation Limited ('OMCL'), UAIL issued during the year, a Zero Coupon Unsecured Redeemable Non-Convertible Debentures of ₹ 3 Crore to OMCL towards its obligation to pay OMCL an amount equivalent to 15% per annum on ₹ 20 Crore as return up to March 31, 2021 which is due for redemption at par on September 30, 2021.

22. Provisions

Refer Note 1B(L) for accounting policy on Provisions and Contingencies and
Refer Note 1B(V) for accounting policy on Employee Benefits

(₹ in Crore)

	As at					
	31/03/2021			31/03/2020		
	Non-Current	Current	Total	Non-Current	Current	Total
Employee Benefits - (refer note 30)	7,472	1,138	8,610	7,697	854	8,551
Assets Retirement Obligation	302	78	380	302	75	377
Environmental Liability	14	191	205	10	56	66
Enterprise Social Commitment	200	48	248	188	55	243
Renewable Power Obligation	-	172	172	-	186	186
Legal Cases	-	525	525	-	612	612
Other Provisions	158	458	616	140	373	513
	674	1,472	2,146	640	1,357	1,997
	8,146	2,610	10,756	8,337	2,211	10,548

(a) The Group have made provisions towards environmental, asset retirement, social responsibility, renewable power, restructuring, rehabilitation, carbon emission, legal and other obligations at various locations involving considerable uncertainties towards amount and timing of outflow of economic resources. The provisions are discounted over the management expected timing of related cash flows.

(b) Movements in each class of provisions are set out below:

(₹ in Crore)

	Assets Retirement Obligation	Environmental Liability	Enterprise Social Commitment	Renewable Power Obligation	Legal Cases	Other Provisions *	Total
Balance as at April 01, 2019	**414**	**92**	**258**	**99**	**475**	**318**	**1,656**
Recognised/ (Reversed) - (d)	19	2	(20)	152	9	229	391
Reclassified	-	-	-	-	190	-	190
Used/Paid	(31)	(29)	(12)	(65)	(36)	(44)	(217)
Unwinding of discounts	(20)	1	17	-	-	-	(2)
Exchange adjustment	(5)	-	-	-	(26)	10	(21)
Other	-	-	-	-	-	-	-
Balance as at March 31, 2020	**377**	**66**	**243**	**186**	**612**	**513**	**1,997**
Recognised/ (Reversed) - (d)	40	54	4	18	(5)	195	306
Reclassified	-	-	-	-	1	-	1
Used/Paid	(32)	(12)	(13)	(32)	(68)	(162)	(319)
Unwinding of discounts	3	1	14	-	-	-	18
Exchange adjustment	(8)	(6)	-	-	(15)	(34)	(63)
Additions due to Aleris acquisition #	-	102	-	-	-	104	206
Other	-	-	-	-	-	-	-
Balance as at March 31, 2021	**380**	**205**	**248**	**172**	**525**	**616**	**2,146**

* Other Provisions primarily includes provisions towards restructuring, rehabilitation, carbon emission, statutory provisions related to indirect taxes, coal cess, etc.

Refer Note 49 - Business Combination

NOTES FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS

(c) Brief Description of Provisions:

i) Assets Retirement Obligations:

Asset Retirement Obligation (ARO) is a legal or constructive obligation associated with the ash ponds, red mud ponds, ash pipeline and coal transportation system in refineries and mining lands where these lands need to be restored back to usable condition after closing of activities. This is a statutory requirement in which the timing or method of settlement may be conditional on one or multiple future events, the occurrence of which may not be within the control of the entity. The outflow of economic resources is expected during FY 2021 to FY 2047. The same has been appropriately discounted.

ii) Environmental Liability:

Environmental Liability is associated with disposal of hazardous material generated during the course of manufacturing or mining operation e.g. disposal of spent pot lining, Gypsum, Slag etc. This disposal generally takes place as per the guidelines set by various regulatory authorities of States and Central Government. The outflow of economic resources is generally expected in following financial year.

iii) Enterprise Social Commitment:

Enterprise Social Commitment is the amount to be spent on social and economic development of the surrounding area where new project is being setup. This is generally defined as a certain percentage of the total cost of the project. The outflow of economic resources is expected during FY 2021 to FY 2056. This has been appropriately discounted wherever necessary.

iv) Legal Cases:

There are certain legal cases (including revenue matters) against which provision has been made since these events are probable to happen i.e. more likely than not but timing of occurrence of such events is uncertain as it depends on when the matter will be settled at the highest Court of law.

v) Renewable Power Obligation (RPO):

Obligations have been imposed on captive power producing units in certain group entities to purchase energy from renewable sources by various state electricity regulatory commissions based on each state's varying renewable energy potentials. Known as Renewable purchase obligations (RPOs), captive power plants are bound to meet them by purchasing a certain percentage of their requirements from renewable energy sources.

vi) Other Provisions:

Restructuring charges include employee severance and benefit costs and other costs associated with exit activities. Severance costs are recognized when management with the proper level of authority has committed to a restructuring plan and communicated those actions to employees. Other exit costs include environmental remediation costs and contract termination costs, primarily related to equipment and facility lease obligations. At each reporting date, we evaluate the provisions for restructuring costs to ensure the provisions are still appropriate.

Provision for carbon emission represents estimated liabilities towards emissions for operations in Europe and Asia. The provision is measured at the carrying amount of allowances to the extent that the provision will be settled using allowances on hand, with any excess emission being measured at the market value of the allowances at the period end.

We believe we have made reasonable estimates for the costs that are reasonably possible for these provisions.

Based on the estimates of the timing of the cash outflows related to provisions, discounting will not have a material impact.

(d) Reversal of RPO Provision:

Pursuant to the issuance of notification by Madhya Pradesh Electricity Regulatory Commission (MPERC) dated April 05, 2021 the Company has reversed the excess RPO provision of ₹ 21 crore related to FY20. Additionally ₹ 36 crore has been reversed on account of reduction in Solar certificate rate from ₹ 2,400/ REC to ₹ 1,000/ REC

(e) Reversal of Legal cases Provision:

Reversal of ₹ 39 Crore includes reversal of ₹ 37 Crore on account of UP Transit Fees and ₹ 2 Crore on account of Energy Compensation Charges.

23. Other Non-Current and Current Liabilities

(₹ in Crore)

	As at			
	31/03/2021		31/03/2020	
	Non-Current	Current	Non-Current	Current
Customer Refund Liability - (a) (refer Note 25)	-	83	-	89
Statutory Dues Payables	156	1,154	170	708
Deferred Income - (b) & (c)	1,349	83	1,173	71
Other Payables	34	21	34	21
	1,539	1,341	1,377	889

(a) Customer refund liability are recognised mainly for discount payable to customers.

(b) Includes deferred income in respect of grant related to Export Promotion Capital Goods (EPCG) ₹ 609 crore (31/03/2020: ₹ 628 crore) in non- current portion and ₹ 20 crore (31/03/2020: ₹ 21 crore) in current portion.

(c) Includes deferred government grant income of ₹ 740 crore (31/03/2020: ₹ 545 crore) in non-current portion and ₹ 58 crore (31/03/2020: ₹ 44 crore) in current portion.

24. Contract Liabilities

Refer Note 1B(Z) for accounting policy on Contract Liability

(₹ in Crore)

	As at 31/03/2021		As at 31/03/2020	
	Non-Current	Current	Non-Current	Current
Advance from Customers - (refer Note 25)	12	347	14	188
	12	347	14	188

(a) Reconciliation of contract liabilities for the periods presented:

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Balance at beginning of the year	202	197
Amount received during the year against which revenue has not been recognized	304	142
Additions due to Aleris Acquisition	8	-
Revenue recognized during the year		
Less: Contract liabilities at the beginning of the year	(152)	(141)
Less: Performance obligations satisfied in previous years	-	-
Less: Others	-	-
Foreign exchange gains and losses	(3)	4
Balance at end of the year	359	202

NOTES FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS

25. Revenue from Operations

Refer Note 1B(Y) for accounting policy on Revenue Recognition
Refer Note 1B(U) for accounting policy on Accounting for Government Grants

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Revenue from Contract with Customers		
Sale of Products - (a), (b)	128,619	116,159
Trade Sales	1,414	156
Sale of Services - (c)	976	825
	131,009	117,140
Other Operating Revenues - (a) & (d)	976	1,004
	131,985	**118,144**

	Year ended 31/03/2021	Year ended 31/03/2020
Reconciliation of revenue recognised with contract price:		
Contract Price	**132,557**	**116,541**
Adjustments for:		
Refund Liabilities and Discounts	(576)	(699)
Hedging Gain/ (Loss)	(882)	1,283
Others - Provisionally priced contracts	(90)	15
Revenue from Contracts with Customers	**131,009**	**117,140**

(a) Sales of Copper products and precious metals are accounted for provisionally, pending finalization of price and quantity. Variations are accounted for in the period of settlement. Final price receivable on sale of above products for which provisional price was not finalized are realigned at year end forward LME/LMBA rate and is being presented as part of other operating revenue. Revenue from subsequent variation in price movement is loss of ₹ 31 crore (31/03/2020: loss of ₹ 1 crore).

(b) Includes nutrient based subsidy of Phosphorus (P) & Potassium (K) arising from sale of Di ammonium phosphate (DAP) ₹ 402 crore (31/03/2020: ₹ 234 crore).

(c) Sale of Services predominantly includes freight and insurance on certain export contracts, which are identified as separate performance obligation under Ind AS 115.

(d) Includes Government grant in the nature of sales related export incentives and other benefits of ₹ 211 crore (31/03/2020: ₹ 329 crore).

(e) Group's revenue from external customers as analysed by the country, in which customers are located is given below:

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
India	28,664	28,543
Outside India		
United States	30,500	28,290
Brazil	13,206	13,260
Korea	9,009	6,745
United Kingdom	6,161	5,812
Germany	5,317	4,456
China	5,815	2,643
Others	33,102	28,066
	131,774	117,815
Add: Export Incentive and other benefits	211	329
Total Revenue from Operations	**131,985**	**118,144**

(f) Applying the practical expedient as given in Ind AS 115, the Group has not disclosed the remaining performance obligations related disclosures for contracts where revenue recognized corresponds directly with value to the customer of the Group's performance completed to date.

26. Other Income

Refer Note 1B(AA) for accounting policy on Dividend and Interest Income
Refer Note 1B(U) for accounting policy on Accounting for Government Grants
Refer Note 1B(Q) for accounting policy on Financial Instruments

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Interest Income		
On Non-Current Investments	13	1
On Current Investments	24	36
On Others - (a)	144	252
Dividend Income		
On Non-Current Investments - (b)	25	35
Rent Income	16	15
Gains/ (Loss) on Property, Plant and Equipment and Intangibles Assets sold/ discarded (Net)	(35)	(7)
Gains/(Loss) on Financial Investments Measured at FVTPL (Net)		
On sale of Financial Assets	809	157
On change of Fair Value of Financial Assets	(266)	299
Income from Government Grants - (c)	120	79
Other Non-Operating Income (Net) - (d), (e)	372	319
	1,222	**1,186**

(a) Interest Income on others includes ₹ 0.13 Crore (31/03/2020 ₹ 46 Crore) of interest received from Income Tax Department.

(b) All dividends from equity investments designated at FVTOCI relate to investments held at the end of the reporting period. There was no dividend income relating to investments derecognised during the reporting period.

(c) Grant income mainly includes carbon emission credit allotments of ₹ 116 Crore (31/03/2020: ₹ 77 Crore) for certain operations in Europe and Asia and grant income associated with fixed assets investments in North America, South America and Asia of Group's subsidiary Novelis Inc. There are no unfulfilled conditions or other contingencies attached to these grants.

(d) Includes gain on modification of borrowings ₹ 113 Crore (31/03/2020: ₹ 19 Crore) resulting from change in rate and timing of expected cash flows payments on term loans. It also includes gain recognised on account of change in loan amortisation schedule ₹ 4 Crore (31/03/2020: ₹ 1 Crore) due to change in benchmark rate.

(e) Includes royalty income of ₹ 58 Crore (31/03/2020: ₹ 35 Crore).

27. Cost of Materials Consumed

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Raw Materials - (a)	77,630	68,030
Packing Materials	-	2
	77,630	**68,032**

(a) Purchase of copper concentrate is accounted for provisionally pending finalization of contents in the concentrate and price. Variations are accounted for in the period of settlement. Final price payable on purchase of copper concentrate for which provisional price and quantity were not finalized during the year are realigned based on forward LME and LBMA rate. Impact on cost from subsequent variation in price movement was loss of ₹ 160 crore (31/03/2020: gain of ₹ 217 crore).

28. Trade Purchases

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Aluminum Rolled Product	126	36
Fertilizer - (a)	928	119
Others - (b)	44	101
	1,098	256

(a) During the current year, the Fertilizer plant was shut for regular maintenance. Thus, to cater to the domestic demand the Group has imported the fertilizer products i.e. Di Ammonium Phosphate (DAP) and Nitrogen, Phosphorus and Potassium (NPK).

(b) Includes gain on realignment of ₹ Nil Crore (31/03/2020: gain ₹ 6 Crore) based on forward LBMA/LME rates for provisionally priced trade purchases.

29. Changes in Inventories of Finished Goods, Work-in-Progress and Stock-in-Trade

(₹ in Crore)

	Opening Inventories		Closing Inventories		Net Change	
	As at		As at		Year ended	
	31/03/2021	31/03/2020	31/03/2021	31/03/2020	31/03/2021	31/03/2020
Work-in-Progress	10,102	10,748	13,439	10,102	(3,337)	646
Finished Goods	4,500	3,304	4,869	4,500	(369)	(1,196)
Stock-in-Trade	127	-	4	127	123	(127)
	14,729	14,052	18,312	14,729	(3,583)	(677)
Inventories acquired in business combination	-	-	-	-	1,755	-
Currency Translation Adjustment (Net)	-	-	-	-	(318)	660
	14,729	14,052	18,312	14,729	(2,146)	(17)

30. Employee Benefits

(A) Employee Benefits Expense

Refer Note 1B(V) for accounting policy on Employee Benefits

Refer Note 1B(W) for accounting policy on Employee Share-based Payments

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Salaries and Wages - (a)	8,274	6,568
Post Employment Benefits:		
Contribution to Provident Fund and Other Defined Contribution Funds	421	382
Gratuity and Other Defined Benefit Plans	356	650
Employee Share-Based Payment (refer Note 41)		
Equity Settled Share-Based Payment	15	28
Cash-Settled Share-Based Payment	286	(7)
Employee Welfare Expenses	1,567	1,263
	10,919	8,884
Less: Transferred to Capital Work-in-Progress/ Intangible Assets under development	(137)	(52)
	10,782	8,832

(a) Includes restructuring related cost of ₹ 60 Crore (31/03/2020: ₹ NIL Crore).

(b) The Code on Social Security, 2020 ('Code') relating to employee benefits during employment and postemployment benefits received Presidential assent in September 2020. The Code has been published in the Gazette of India. However, the date on which the Code will come into effect has not been notified. The Group will assess the impact of the Code when it comes into effect and will record any related impact in the period the Code becomes effective.

(c) The Hon'ble Supreme Court of India ("SC") by their order dated February 28, 2019, in the case of Surya Roshani Limited v/s EPFO, set out the principles based on which allowances paid to the employees should be identified for inclusion in basic wages for the purposes of computation of Provident Fund contribution. The Company has given effect of the above judgement effective March 1, 2019. This does not have any material impact on the Consolidated Financial Statements.

(B) Post Employment Benefits

1. Defined Benefit Plans

Major Post retiral defined benefit plans of the Group include Gratuity, Pension, Post retirement medical benefit and Provident Fund (to the extent of the Group's obligation to fund any shortfall on the yield of the trust's investments over the administered interest rates on an annual basis by Central Provident Fund Organisation of Govt of India). The Group does Actuarial valuation for its identified long term and short term defined benefit plans.

Methodology for actuarial valuation of Defined Benefit Obligations:

The Projected Unit Credit (PUC) actuarial method has been used to assess the plan's liabilities, including those related to death-in-service and incapacity benefits.

Under PUC method a projected accrued benefit is calculated at the beginning of the year and again at the end of the year for each benefit that will accrue for all active members of the plan. The projected accrued benefit is based on the plan's accrual formula and upon service as of the beginning or end of the year, but using a member's final compensation, projected to the age at which the employee is assumed to leave active service. The plan liability is the actuarial present value of the projected accrued benefits for active members.

Defined benefit plans expose the Group to actuarial risks such as Interest Rate Risk, Salary Risk and Demographic Risk.

i. Interest Rate Risk: While calculating the defined benefit obligation a discount rate based on government bonds yields of matching tenure is used to arrive at the present value of future obligations. If the bond yield falls, the defined benefit obligation will tend to increase and plan assets will decrease.

ii. Salary Risk: Higher than expected increases in salary will increase the defined benefit obligation.

iii. Demographic Risk: This is the risk of variability of results due to unsystematic nature of decrements that include mortality, withdrawal, disability and retirement. The effect of these decrements on the defined benefit obligations is not straight forward and depends on the combination of salary increase, discount rate and vesting criteria. It is important not to overstate withdrawals because in the financial analysis the retirement benefit of a short career employee typically costs less per year as compared to a long service employee.

(I) Gratuity Plans

The Group has various schemes (funded/unfunded) for payment of gratuity to all eligible employees calculated at specified number of days (ranging from 15 days to 1 month) of last drawn salary depending upon the tenure of service for each year of completed service subject to minimum service of five years payable at the time of separation upon superannuation or on exit otherwise. These defined benefit gratuity plans are governed by Payment of Gratuity Act, 1972.

NOTES FORMING PART OF THE CONSOLIDATED FINANCIAL STATEMENTS

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
(a) Change in Defined Benefit Obligation (DBO)		
Defined Benefit Obligation at beginning of the year	1,107	972
Current Service cost	52	52
Interest Cost on the DBO	73	72
Settlement cost/ (credit)	4	-
Actuarial (gain)/ loss experience	(52)	29
Actuarial (gain)/ loss financial assumption	23	44
Benefits paid directly by Company	(44)	(34)
Benefits paid from plan assets	(32)	(28)
Defined Benefit Obligation at the end of the year	1,131	1,107
(b) Change in Fair Value of Plan Assets		
Fair value of assets at the beginning of the year	894	794
Interest Income on plan assets	59	61
Employer's contributions	55	66
Return on plan assets greater/(lesser) than discount rate	22	1
Benefits Paid	(32)	(28)
Fair value of assets at the end of the year	998	894
(c) Development of Net Balance Sheet Position		
Defined Benefit Obligation, Funded	(1,131)	(1,107)
Fair Value of Plan Assets	998	894
Funded Status (surplus/(deficit))	(133)	(213)
Defined Benefit Obligation, Unfunded	-	-
Net defined benefit asset/(liability)	(133)	(213)
(d) Reconciliation of Net Balance Sheet Position		
Net Defined benefit asset/(Liability)at beginning of the year	(213)	(178)
Service cost	(52)	(52)
Settlement cost/ (credit) $	(4)	-
Net Interest on net defined benefit liability/(asset)	(14)	(11)
Amount recognised in OCI	51	(72)
Employer's contributions	55	66
Benefit paid directly by Company	44	34
Net Defined benefit asset/(Liability)at the end of the year	(133)	(213)
(e) Expense recognised during the year		
Current Service cost	52	52
Settlement cost/ (credit) $	4	-
Net Interest on net defined benefit liability/(asset)	14	11
Net Gratuity Cost	70	63

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
(f) Other Comprehensive Income(OCI)		
Actuarial (gain)/loss due to DBO experience	(52)	29
Actuarial (gain)/loss due to DBO assumption changes	23	44
Actuarial (gain)/loss arising during the year	(29)	73
Return on Plan Assets(greater)/less than discount rate	(22)	(1)
Actuarial (gain)/loss recognised in OCI	(51)	72
(g) Defined Benefit Cost		
Service Cost	56	52
Net Interest on net defined benefit liability/(asset)	14	11
Actuarial (gain)/loss recognised in OCI	(51)	72
Defined Benefit Cost	19	135
(h) Principal Actuarial Assumptions		
Discount rate (based on the market yields available on Government bonds at the accounting date with a term that matches that of the liabilities)	6.25%	6.50%
Salary escalation rate	7.50%	7.50%
Weighted average duration of the defined benefit obligation	9 Years	9 Years
Mortality Rate	Indian Assured Lives Mortality 2006-08	

(i) Non-Current and Current portion of Defined Benefit Obligation

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Current portion	3	-
Non-Current portion	130	213
	133	213

(j) Sensitivity Analysis

Sensitivity analysis are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the defined benefit liability recognised in the balance sheet.

(₹ in Crore)

	Year Ended 31/03/2021	Year Ended 31/03/2020
Discount Rate		
Discount rate as at end of the year	6.25%	6.50%
Effect on Defined Benefit Obligation due to 1% Increase in Discount Rate	(87)	(86)
Effect on Defined Benefit Obligation due to 1% Decrease in Discount Rate	100	98
Salary Escalation Rate		
Salary Escalation Rate as at end of the year	7.50%	7.50%
Effect on Defined Benefit Obligation due to 1% Increase in Salary Escalation Rate	98	96
Effect on Defined Benefit Obligation due to 1% Decrease in Salary Escalation Rate	(87)	(86)

(₹ in Crore)

(k) The Expected Maturity Analysis of Undiscounted Gratutiy is as follows:	As at	
	31/03/2021	31/03/2020
Within 1 year	58	61
from 1 year to 2 Year	89	87
from 2 year to 3 Year	98	92
from 3 year to 4 Year	96	101
from 4 year to 5 Year	105	99
from 5 year to 10 Year	587	589

(₹ in Crore)

(l) Plan Assets Information	As at	
Major categories of Plan Assets are as under:	31/03/2021	31/03/2020
Cash and Bank Balances	8.96%	1.81%
Scheme of insurance - conventional product	1.19%	1.37%
Scheme of insurance - ULIP Product	89.85%	96.82%
	100.00%	100.00%

Above Investment in Plan Assets are unquoted.

$ Settlement cost/(credit) during the year has been accounted under Exceptional Expenses as it pertains to Voluntary Retirement Scheme (VRS) granted at our Mines, Gare Palma (refer note - 37)

(m) Expected Contributions to post employment benefit plan of Gratuity for the year ended March 31, 2022 are ₹ 65 Crore.

(II) Pension and Post Employment Medical Benefits of Novelis Inc, the Group's overseas subsidiary

Obligations related to the Group's overseas operations, relate to: (1) funded defined benefit pension plans in the U.S., Canada, Switzerland, and the U.K.; (2) unfunded defined benefit pension plans in Germany; (3) unfunded lump sum indemnities payable upon retirement to employees in France, Malaysia and Italy; and (4) partially funded lump sum indemnities in South Korea. These defined benefit plans provide a benefit to eligible employees based on plan provisions, including but not limited to, years of service, compensation, or other vesting criteria. Each of the funded pension plans is governed by an Investment Fiduciary. Other post retirement obligations include unfunded health care and life insurance benefits provided to eligible retired employees in the U.S., Canada, and Brazil. In addition, it provide post employment benefits, including disability, early retirement and continuation of benefits (medical, dental, and life insurance) to eligible former employees.

In connection with the acquisition of Aleris Corporation, the Group acquired postretirement benefit plans covering certain employees in Europe and the United States. Upon acquisition, the Group recognized the funded status of the defined benefit plans as an asset or a liability within other non-current assets or other non-current liabilities in the consolidated balance sheet. The plan assets are recognized at fair value. The group uses various assumptions when computing amounts relating to its defined benefit pension plan obligations and their associated expenses (including the discount rate and the expected rate of return on plan assets).

Compensated absence is presented as current, since the Group does not have an unconditional right to defer settlement for any of these obligations.

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
a. Change in obligation over the year		
Present Value of defined benefit obligations at the beginning of the year	16,211	14,493
Exchange (gain)/loss on translation	212	1,060
Current Service Cost	439	394
Interest Cost	414	417
Curtailment cost/ (credit)	(312)	-
Settlement cost/ (credit)	-	(91)
Plans assets on acquisitions - (refer note 49)	1,650	-
Plan Participants Contribution	37	33
Plan Amendments	7	-
Net actuarial(gain)/ loss	(146)	544
Remeasurement changes in Asset ceiling	34	-
Benefits Paid	(776)	(639)
Present Value of defined obligations at the end of the year	17,770	16,211
b. Change in plan Assets (Reconciliation of opening and closing Balance)		
Fair Value of plan Assets at the beginning of the year	9,028	8,336
Exchange gain/ (loss) on translation	105	581
Plans assumed on acquisitions	244	-
Plan Settlements	-	(72)
Remeasurement - return on plan assets excluding amount included in interest income	1,114	(23)
Interest Income	258	256
Employers' Contributions	722	556
Plan participants contribution	37	33
Benefits Paid	(776)	(639)
Fair value of assets at the end of the year	10,732	9,028
c. Reconciliation of fair value of assets & obligations		
Present value of defined benefit obligations at the end of the year	17,770	16,211
Fair Value of Plan assets at the end of the year	10,732	9,028
Amount recognized in the consolidated balance sheet	7,038	7,183
Recognized prepaid pension	81	138
Recognized pension liability	7,119	7,321

(₹ in Crore)

d. Expenses recognized during the year	Year ended	
	31/03/2021	31/03/2020
Current service cost	439	394
Past service cost/ Curtailment costs/ (gain)	(305)	(19)
Interest cost (net)	156	161
	290	536

Details of special events during the year:

Pension Plan Freeze:

During the quarter ended September 2020, the Group announced the freeze of future benefit accruals under the Novelis Pension Plan and the Terre Haute Pension Plan in the U.S., effective December 31, 2020. The Group premeasured both plans' plan assets and obligations as of August 31, 2020, which was the nearest calendar month-end date to the announcements of said freezes.

Others: During the year ended March 31, 2021, benefit multipliers in the Terre Haute Hourly Pension Plan and the Warren Hourly Pension Plan have been updated as a result of negotiations occurring subsequent to March 31, 2020. Accordingly plan liabilities have been re-measured to that extent.

The Group recognised past service credit comprising curtailment and plan amendment mentioned in the table above amounting to ₹ 305 Crore (USD 41 million) with respect to these plans in North America within Employee benefits expense in the profit and loss statement during the year ended March 31, 2021.

e. **Remeasurement of net defined benefit liability/(asset) (OCI)**

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Actuarial (gains)/ losses arising from changes in demographic assumptions	(77)	(86)
Actuarial (gains)/ losses arising from changes in financial assumptions	74	694
Actuarial (gains)/ losses arising from changes in experience adjustments	(143)	(64)
Remeasurement of net defined benefit liability	(146)	544
Remeasurement return on plan assets excluding amount included in interest income	(1,114)	24
Impact of asset ceiling	34	
Exchange Gain/ (Loss)	103	(70)
	(1,123)	498

f. **Composition of Plan Assets**

	31/03/2021	31/03/2020
Equity	3,520	3,100
Fixed Income	5,792	4,597
Real Estate	265	215
Cash and cash equivalent	816	98
Other	339	1,018
	10,732	9,028

g. **Sensitivity analysis for each significant actuarial assumption**

(₹ in Crore)

	31/03/2021 Approximate (increase)/ decrease		31/03/2020 Approximate (increase)/ decrease	
	Defined Benefits obligation	Post Employment Medical Benefits	Defined Benefits obligation	Post Employment Medical Benefits
Discount Rate				
Increase of 1 percentage	2,331	85	2,218	77
Decrease of 1 percentage	(2,834)	(101)	(2,716)	(91)
Salary Growth Rate				
Increase of 1 percentage	(349)	-	(473)	-
Decrease of 1 percentage	308	-	448	-
Pension Growth Rate				
Increase of 1 percentage	(831)	-	(640)	-
Decrease of 1 percentage	714	-	548	-

(₹ in Crore)

	31/03/2021 Approximate (increase)/ decrease		31/03/2020 Approximate (increase)/ decrease	
	Defined Benefits obligation	Post Employment Medical Benefits	Defined Benefits obligation	Post Employment Medical Benefits
Expected future lifetimes (in years) for employees				
Participants assumed to have the mortality rates of individuals who are one year older	(363)	(4)	(463)	(4)
Participants assumed to have the mortality rates of individuals who are one year younger	376	4	464	4
Medical cost trend rates				
Increase of 1 percentage	-	(105)	-	(94)
Decrease of 1 percentage	-	105	-	102

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the defined benefit liability recognised in the balance sheet.

The methods and types of assumptions used in preparing the sensitivity analysis did not change compared to the prior period.

h. The principal actuarial assumptions at the reporting dates(expressed as weighted averages) for defined benefit plans

	As at 31/03/2021	As at 31/03/2020
Discount Rate	0.77% - 3.39%	0.89% - 3.43%
Salary growth Rate	2.60% - 3.17%	2.53% - 4.00%
Expected future lifetimes (in years) for employees		
Pensioners	16.80	16.94
Current employees	7.61 - 11.06	7.52 - 11.53

i. The principal actuarial assumptions at the reporting dates(expressed as weighted averages) for post employment medical benefits

	As at 31/03/2021	As at 31/03/2020
Long term increase in health costs	4.29% - 4.88%	2.50% - 4.84%
Discount rate	2.00% - 7.40%	2.20% - 8.30%

j. Weighted average duration of the defined benefit obligation in years

	As at 31/03/2021	As at 31/03/2020
Weighted average duration of the defined benefit obligation in years	8.19 - 14.62	9 - 15.20

k. Expected maturity analysis of undiscounted defined befit plan and post-employment medical benefit plans

(₹ in Crore)

	31/03/2021				31/03/2020			
	Within 1 year	Between 1-2 years	Between 2-5 years	5 to 10 years	Within 1 year	Between 1-2 years	Between 2-5 years	5 to 10 years
Defined benefit plan	714	1,547	2,339	4,255	588	1,278	2,022	3,743
Post employment medical benefit plant	36	87	149	298	36	77	128	253

l. Expected contributions to the defined benefit plans for the year ended March 31, 2022 are ₹ 311 crore.

2. Other Defined Benefit and contribution Plans

(a) **Pension**

The Group contributes a certain percentage of salary for all eligible employees in India in the managerial cadre towards Superannuation Funds with option to put certain portion in National Pension Scheme (NPS) and/or in funds managed by Birla Sunlife Insurance Company to be converted to annuity of Life Insurance Corporation of India. Junior Pension Plan provided to certain employees is in the nature of defined benefit plan which provides an annuity in the form of pension amount at retirement. Refer note 42 for details of pension benefit provided to erstwhile Managing Director. The amount charged to the Consolidated Statement of Profit and Loss during the year is ₹ 19 crore (31/03/2020: ₹ 61 crore) and amount of actuarial gain/ (loss) recognised in Other Comprehensive Income during the year is ₹ 1 crore (31/03/2020: ₹ 6 crore).

The obligation with respect to these schemes as at 31/03/2021: ₹ 48 Crore (31/03/2020: ₹ 47 Crore).

(b) **Post Retirement Medical Benefit**

The Group provides post retirement medical benefit to its certain employees in India. The scheme involves reimbursement of expenses towards medical treatment of self and dependents. The amount charged to the Profit and Loss during the year is ₹ 0.34 crore (31/03/2020: ₹ 0.36 crore) and amount of actuarial (gain)/ loss recognised in Other Comprehensive Income during the year is ₹ -1 crore (previous year: ₹ 4 crore). The obligation with respect to said scheme as at 31/03/2021 ₹ 5 Crore (31/03/2020: ₹ 5 Crore).

(c) **Leave Obligation**

The leave obligation cover the Group's liability for earned leave. The entire amount of the provision of ₹ 520 crore (31/03/2020: ₹ 453 crore) is presented as current, since the Group does not have an unconditional right to defer settlement for these obligations. Expected amount towards settlement of Leave for the next 12 months are ₹ 37 Crore (31/03/2020: ₹ 38 Crore).

(d) **Provident Fund**

The Company's and certain Indian subsidiaries contribution towards Provident Fund managed either by approved trusts or by the Central Government is debited to the Consolidated Statement of Profit and Loss. In respect of provident fund management by the approved trust, these entities have an obligation to fund any shortfall on the yield of the trust's investments over the administered interest rates on an annual basis. These entities also contributes to Coal Mines Provident Fund (CMPF) in respect of employees working in coal mines.

The amount debited to the Consolidated Statement of Profit and Loss during the year was ₹ 103 crore (31/03/2020: ₹ 100 crore).

Based on actuarial valuation considering this to be in the nature of a defined benefit plan, the Group has recognised obligation as at 31/03/2021 of ₹ 2 crore (31/03/2020: ₹ 8 crore) towards shortfall on the yield of the trust's investments over the administered interest rates. Amount of actuarial (gain)/ loss recognised in Other Comprehensive Income during the year is ₹ (8) Crore (31/03/2020: ₹ (2) Crore).

Certain investments made by Company's Provident Fund Trust ('AAA' rated when the investment was done) became impaired during the previous year. The Trust has recorded the loss in its books for the year ended March 31, 2020. The Company is obligated to make good such losses to the trust and as such has compensated the trust by ₹ 73 crore. The amount has been accounted for in Other Comprehensive Income.

Sensitivity Analysis:

	As at	
	31/03/2021	31/03/2020
Provident Fund		
Discount rate		
Effect on DBO due to 1% increase in discount rate	(3)	(3)
Effect on DBO due to 1% decrease in discount rate	4	4
Pension		
Discount rate		
Effect on DBO due to 1% increase in discount rate	(0.1)	(0.1)
Effect on DBO due to 1% decrease in discount rate	0.1	0.1

Assumption use in determining the present value obligation of the interest rate guarantee under the Deterministic Approach:

	As at	
	31/03/2021	31/03/2020
Discount rate	6.25%	6.50%
Expected EPFO (Employees' Provident Fund Organisation) Return	8.50%	8.50%

31. Power and Fuel

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Power and Fuel Expenses	8,647	9,696
Less: Transferred to Capital Work-in-Progress/Intangible Assets under development	(1)	(1)
	8,646	**9,695**

32. Finance Cost

Refer Note 1B(T) for accounting policy on Borrowing cost

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Interest Expenses on Financial Liabilities not at FVTPL - (a)	3,558	3,555
Interest expense for lease arrangements	56	55
(Gain)/ Loss on Foreign Currency Borrowings (Net)	(14)	9
Loss on Modification and Extinguishment of Debt - (b)	125	568
Other Borrowing Costs - (c)	269	159
	3,994	4,346
Less: Transferred to Capital Work-in-Progress/ Intangible Assets under development - (d)	(256)	(149)
	3,738	**4,197**

(a) Includes difference between effective interest rate and contracted interest rate of ₹ 68 Crore (31/03/2020: ₹ 56 Crore) mainly from amortisation of debt issuance cost.

It also includes ₹ 6 Crore (31/03/2020: ₹ 0.16 Crore) paid to Income Tax Department.

(b) Loss on modification and extinguishment of debt for the year ended March 31, 2021 is related to an amendment in the Short Term Credit Agreement and 2017 term loan (Refer Note 18A: Borrowings, Non-Current).

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(c) Includes unwinding of discount on Enterprise Social Commitment and Asset Retirement Obligation.

(d) The capitalisation rate used to determine the amount of borrowing costs capitalised across the Group ranges between 3.54% to 6.78%.

33. Depreciation and Amortisation

Refer Note 1B(D) -to- (G) for accounting policy on depreciation and amortisation on Property, Plant and Equipment, Investment Property, Intangible Assets (Other than goodwill), Stripping cost

Refer Note 1B(M) for accounting policy on Leases

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Depreciation of Property, Plant and Equipment	5,406	4,271
Depreciation of Right of Use Assets	362	261
Depreciation of Investment Properties	1	1
Amortisation of Intangible Assets	866	563
	6,635	5,096
Less: Transferred to Capital Work-in-Progress	(7)	(5)
	6,628	**5,091**

34. Impairment Loss/ (Reversal) of Non-Current Assets (Net)

Refer Note 1B(J) for accounting policy on Impairment of Non-Current Assets (excluding Goodwill)

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Impairment Loss	145	44
Impairment Reversal	(7)	-
	138	**44**

The Group assess the recoverability of property, plant and equipment and intangible assets whenever events or changes in circumstances indicate that the Group may not be able to recover the asset's carrying amount. Such events or circumstances include, but are not limited to, a significant decrease in the fair value of the underlying business, change in utilization of property and equipment and intangible assets, or market factors such as metal price and input costs.

If any indication exists and an impairment testing for an asset is required, the Group estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash-generating unit's (CGU) fair value less costs of disposal and its value in use. Recoverable amount is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. When the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount and it will be its new cost basis. For a depreciable asset, the new cost basis will be depreciated over the remaining useful life of that asset. For an amortizable intangible asset, the new cost basis will be amortized over the remaining useful life of the asset.

Impairment loss calculations require management to apply judgments in estimating future cash flows to determine asset fair values, including forecasting useful lives of the assets and selecting the discount rate that represents the risk inherent in future cash flows. Impairment charges are recorded in "Impairment Loss/ (Reversal) of Non-Current Assets (Net)" in the Consolidated statement of profit and loss.

For the year ended March 31, 2021, the Group has identified and recognised impairment on its certain non-current assets and the same is summarised in below table:

Break up of Impairment Loss/ (Reversal) recognised during the year:

(₹ in Crore)

	Note	Year ended	
		31/03/2021	31/03/2020
(i) Impairment Loss on items of Property, Plant and Equipment - (a)	2	71	81
(ii) Impairment Loss/ (Reversal) on Capital Work-in-Progress (CWIP)	2 (f)	5	14
(iii) Impairment Loss on Intangible Assets - (a)	5 (d),(e)	44	-
(iv) Impairment Loss on Intangible Assets under Development	5 (d),(e)	-	14
(v) Impairment Loss on Assets/ Disposal Group Held for Sale - (b), (c)	15	18	-
		138	109
(vi) Less: Amounts of Impairment Loss recognised under Exceptional Income/ (Expenses) (Net)	37 (h)	-	(65)
		138	**44**

(a) Operation of certain mining assets of the Group in India have become unviable due to high cost of production and other operational issues. As a result the Group has recognized impairment in respect of these mining assets amounting to ₹ 115 Crore.

(b) The Group has recognised impairment of ₹ 25 crore on certain other assets classified as "Disposal Group Held for Sale" based on their future utilisation plan.

(c) There is an impairment reversal during the year in Assets Held for Sale in Vietnam to the extent of ₹ 3 Crore (USD 0.3 million) and land relating to Ludensheid Germany of ₹ 4 Crore (USD 0.5 million).

35. Impairment Loss/ (Reversal) on Financial Assets (Net)

Refer Note 1B(Q) for accounting policy on Financial Instruments

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Provision for Doubtful Debts, Loans & Advances / (written back) (Net)	(31)	21
Bad Loans, Advances and Receivables Written off/ (written back) (Net)	5	1
	(26)	**22**

36. Other Expenses

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Consumption of Stores and Spares	3,487	2,915
Repairs to Buildings	238	250
Repairs to Machinery	2,292	1,883
Rates and Taxes	165	127
Leases Expenses - (a)	229	177
Insurance Charges	350	203
Payments to Auditors	90	56
Research and Development	638	625
Freight and Forwarding Expenses (Net) - (b)	4,582	4,097
Donation - (c)	10	111
Directors' Fees and Commission	16	8

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
(Gain)/ Loss on assets held for sale	3	3
(Gain)/ Loss on Change in Fair Value of Derivatives (Net)	450	(203)
(Gain) /Loss on Foreign Currency Transactions and Translation (Net)	(44)	108
Miscellaneous Expenses - (d), (e)	5,849	6,629
	18,355	16,989
Less: Transferred to Capital Work-in-Progress/ Intangible Assets under development	(28)	(15)
	18,327	16,974

(a) Details of lease expenses not included in the measurement of lease liabilities:		
Short Term Leases	111	131
Variable Lease Payments	102	35
Leases of Low Value Assets	16	11
	229	177

(b) Freight and forwarding expenses are net of freight subsidy of ₹ 54 Crore (31/03/2020: ₹ 25 Crore) on sale of DAP.

(c) Donation includes ₹ 10 Crore (31/03/2020: ₹ 68 Crore) paid towards political donation, out of which ₹ NIL Crore (31/03/2020: ₹ 10 Crore) paid to AB General Electoral Trust (erstwhile General Electoral Trust) and ₹ 10 Crore (31/03/2020: of ₹ 58 Crore) paid through Electoral Bonds.

(d) Miscellaneous expenses include ₹ 0.04 Crore (31/03/2020: ₹ 0.01 Crore) paid to a firm of solicitors in which one of the Director of the Company is a partner.

(e) Includes Aleris acquisition related cost recognized by the Group ₹ 76 Crore (31/03/2020: ₹ 444 Crore).

37. Exceptional Income/ (Expenses) (Net)

Refer Note 1B(AC) for accounting policy on Exceptional Items

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Exceptional Income	127	25
Exceptional Expenses	(619)	(309)
	(492)	(284)

Details of Exceptional Income/ (Expenses) are given below:

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Exceptional Income		
(a) Renewable Energy Certificates (REC) recognised during the period subsequent to approval received from Odisha Electricity Regulatory Commission (OERC) permitting adjustment of excess REC purchased during earlier years against future Renewable Power Obligation (RPO) and reversal of excess Renewal Power Obligation (RPO) provision related to FY20 subsequent to Madhya Pradesh Electricity Regulatory Commission (MPERC) order.	127	-
(b) Profit on sale of aluminium foil manufacturing unit situated at Kollur, Andhra Pradesh on a slump sale basis	-	25
	127	**25**
Exceptional Expenses		
(c) Charitable Donation to support COVID 19 pandemic relief measures	(395)	-
(d) Employee severance cost pursuant to restructuring program in a manufacturing unit in Novelis Germany and in a mining operation in India	(131)	-
(e) Exgratia amount paid to the employees for their contribution during COVID 19 pandemic	(54)	-
(f) Provision related to Additional Surcharge (ASC) and Cross Subsidy Surcharge (CSS) levied on the Company due to failure of the captive power producer (from whom the Company sourced power in earlier years) to comply with the captive status criteria under Central Electricity Act, 2003	(39)	-
(g) Expenses incurred towards restoration of Red Mud Pond and other related expenses at alumina refinery at Muri, Jharkhand.	-	(89)
(h) Novelis announced its plans to cease operations at a foil plant in Germany to further optimize its product portfolio, which led to the recognition of ₹ 220 Crores in severance and other related expenses. The total amount of all costs related to the restructuring includes ₹ 149 Crores related to employee severance, ₹ 65 Crores related to the impairment of property, plant, and equipment and ₹ 6 Crores to write offs of inventories.	-	(220)
	(619)	**(309)**

38. Other Comprehensive Income/ (Loss)

The disaggregation of changes to other comprehensive income (OCI) by each class is given below:

(₹ in Crore)

	Year ended 31/03/2021			Year ended 31/03/2020		
	Gross	Tax	Net	Gross	Tax	Net
(i) Items that will not be reclassified to Statement of Profit and Loss (Net)						
Remeasurement of Defined Benefit Obligation	1,117	(317)	800	(651)	165	(486)
Remeasurement of Defined Benefit Obligation of Discontinued Operations	60	-	60	-	-	-
Change in Fair Value of Equity Instruments designated as FVTOCI	4,358	(10)	4,348	(2,676)	10	(2,666)
Share in Equity Accounted Investments	-	-	-	-	-	-
	5,535	(327)	5,208	(3,327)	175	(3,152)
(ii) Items that will be reclassified to Statement of Profit and Loss (Net)						
Change in Fair Value of Debt Instruments Designated as FVTOCI	(9)	3	(6)	5	(2)	3
Effective portion of Cash Flow Hedges	(1,769)	501	(1,268)	(640)	235	(405)
Cost of Hedging Reserve	(168)	59	(109)	(589)	206	(383)
Foreign Currency Translation Reserve	959	-	959	1,214	-	1,214
	(987)	563	(424)	(10)	439	429
Total Other Comprehensive Income/ (loss)	**4,548**	**236**	**4,784**	**(3,337)**	**614**	**(2,723)**

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39. Earnings Per Share (EPS)

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Profit/ (Loss) for the year from Continuing Operations		
As per Consolidated Statement of Profit and Loss	5,182	3,767
Less: Non-Controlling Interests in Profit/ (Loss)	-	-
Profit/ (Loss) from Continuing Operations attributable to Owners of the Company	5,182	3,767
Profit/ (Loss) for the year from Discontinued Operations		
As per Consolidated Statement of Profit and Loss	(1,699)	-
Less: Non-Controlling Interests in Profit/ (Loss)	-	-
Profit/ (Loss) from Discontinued Operations attributable to Owners of the Company	(1,699)	-
Profit/ (Loss) attributable to Owners of the Company from Continuing and Discontinued Operations	3,483	3,767
Weighted average number of equity shares for calculation of EPS:		
Weighted average number of equity shares for Basic EPS	2,224,224,042	2,223,957,744
Dilutive impact of Employee Stock Options Scheme	1,172,360	991,162
Weighted average number of equity shares for Diluted EPS	2,225,396,402	2,224,948,906
Face value of per Equity Share (₹)	1.00	1.00
Earnings Per Share		
Basic - Continuing Operations (₹)	23.30	16.94
Diluted - Continuing Operations (₹)	23.29	16.93
Basic - Discontinued Operations (₹)	(7.64)	-
Diluted - Discontinued Operations (₹)	(7.64)	-
Basic - Continuing and Discontinued Operations (₹)	15.66	16.94
Diluted - Continuing and Discontinued Operations (₹)	15.65	16.93

Treasury shares are excluded from weighted-average numbers of equity shares used as a denominator in the calculation of EPS.

4,295,432 share options (31/03/2020: 4,448,494 share options) granted under Employee Stock Option Scheme (ESOP) but were not included in the calculation of diluted earnings per share because they are antidilutive for the period. Options can potentially dilute basic earnings per share in the future depending on future share price of the Company.

Stock options granted to the employees under various ESOP schemes are considered to be potential equity shares. They have been included in the determination of diluted earnings per share to the extent to which they are dilutive. The stock options have not been included in the determination of basic earnings per share. The details relating to stock options are under Note 41.

40. Segment Information:

Refer Note 1B(AB) for accounting policy on Segment Reporting

During the year, in line with the changes in the internal structure for reporting financial information to the entity's chief operating decision maker (CODM), the Group changed the composition of its 'Aluminium segment' and corresponding change in 'All Other Segments'. There is no change in 'Copper segment' and 'Novelis segment'. The corresponding segment information of previous year has also been restated accordingly. Description of each of the reporting segments is as under:

i. Aluminium Segment: This segment represents Aluminium business of the Company, Utkal Alumina International Limited (UAIL), Hindalco Almex Aluminium Limited (HAAL), Suvas Holdings Limited (SHL) and Minerals and Minerals Limited (M&M). Previously, HAAL, SHL and M&M were included as part of "All Other Segments'.

ii. Copper Segment: This segment represents Copper Business of the Company and Dahej Harbour and Infrastructure Limited, a wholly owned subsidiary of the Company that operates a captive Jetty of the Group, and in the business of manufacturing and selling of Copper Cathode, Continuous Cast Copper Rods, Sulphuric Acid, DAP & Complexes, Gold, Silver and other precious metals.

iii. Novelis Segment: This segment represents Novelis Inc, a wholly owned foreign subsidiary, engaged in producing and selling aluminium sheet and light gauge products and operating in all four continents viz. North America, South America, Europe and Asia. This is identified as a separate reportable segment based on its geographical area and regulatory environment.

iv. All Other Segment: This segment represents remaining subsidiaries of the Group.

The chief operating decision maker (CODM) primarily uses earnings before interest, tax, depreciation and amortisation (EBITDA) as performance measure to assess the performance of the operating segments. However, the CODM also receives information about the segment's revenues, segment assets and segment liabilities on regular basis.

A. Segment Profit or Loss:

Segment's performance are measured based on Segment EBITDA. Segment EBITDA is defined as under:

For Aluminium segment and Copper segment:

Segment EBITDA is "Earnings before Finance Costs, Exceptional Income / (Expenses), Tax Expenses, Depreciation and Amortization, certain un-allocable corporate expenses which are not related to the performance of the segment, Impairment of Non-Current Assets, Investment income, Fair value gains or losses on financial assets and share in profit/ loss in equity accounted investments".

For Novelis segment:

For Novelis segment the Group uses "adjusted EBITDA" as its Segment income measurement. Adjusted EBITDA is earnings before (a) depreciation and amortization; (b) finance cost - net; (c) interest income; (d) unrealized gains or losses on change in fair value of derivative instruments, net, except for foreign currency remeasurement hedging activities, which are included in segment income; (e) impairment loss or reversal, net; (f) gain or loss on extinguishment of debt; (g) restructuring costs; (h) profit or loss on plant property and equipment and intangibles sold or discarded, net; (h) other costs/ income, net; (j) litigation settlement, net of insurance recoveries; (k) sale transaction fees; (l) cumulative effect of accounting change, net of tax; (m) metal price lag; (n) exceptional income or cost; (o) business acquisition and other integration related costs; (p) purchase price accounting adjustments; and (q) gains or losses from discontinued operations, net of tax which is in line with the segment information for Novelis that has been reported in accordance with its US GAAP financial information filed with the Securities Exchange Commission of the United States of America. Recognition and measurement differences between US GAAP and Ind AS accounting policies have been separately identified as part of reconciliation in the segment information. Gains and losses on metal derivative contracts are not recognized in "Segment income" until realized.

For All Other segments:

This segment represents remaining subsidiaries of the Group which are the separate legal entities. For this Segment EBITDA is "Earnings before Finance Costs, Exceptional Income / (Expenses), Tax Expenses, Depreciation, Amortization and Impairment of Non-Current Assets and certain expenditure not directly related to operations.

Segment EBITDA are as follows:

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Novelis	12,727	10,435
Aluminium	4,855	3,749
Copper	716	1,276
All Other Segments	26	(38)
Total Segment EBIDTA	18,324	15,422

Segment EBITDA reconciles to Profit/ (Loss) before Tax from Continuing Operations as follows:

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Total Segment EBIDTA	18,324	15,422
Finance Cost	(3,738)	(4,197)
Depreciation and Amortization	(6,628)	(5,091)
Impairment Loss/ (Reversal) of Non-current Assets (Net)	(138)	(44)
Share in Profit/ (Loss) in Equity Accounted Investments (Net of Tax)	5	4
Exceptional Income / (Expenses) (Net)	(492)	(284)
Interest and Dividend Income	143	239
Gains/ (losses) on Financial Assets Measured at fair value through Profit and Loss (Net)	542	454
Adjustment on account of different accounting policies for Novelis Segment	554	287
Other Unallocated Income/ (Expenses) (Net)	(667)	(866)
Profit/ (Loss) before Tax from Continuing Operations	7,905	5,924
Profit/ (Loss) before Tax from Discontinued Operations	(2,066)	-
Profit/ (Loss) before Tax from Continuing and Discontinued Operations	5,839	5,924

Following amount are either included in the measure of segment profit or loss reviewed by the CODM or are regularly provided to the CODM:

(₹ in Crore)

	Year ended 31/03/2021				
	Novelis	Aluminium	Copper	All Others	Total
Interest Income - (a)	-	18	45	-	63
Gains/ (losses) on Financial Assets Measured at fair value through Profit and Loss (Net)	-	-	-	1	1
Depreciation and Amortization - (b)	4,570	1,836	167	-	6,573
Impairment Loss/ (Reversal) of Non-Current Assets (Net) - (b)	(2)	140	-	-	138

	Year ended 31/03/2020				
	Novelis	Aluminium	Copper	All Others	Total
Interest Income - (a)	-	26	59	-	85
Gains/ (losses) on Financial Assets Measured at fair value through Profit and Loss (Net)	-	1	-	1	2
Depreciation and Amortization - (b)	3,039	1,824	175	18	5,056
Impairment Loss/ (Reversal) of Non-Current Assets (Net) - (b)	44	-	-	-	44

(a) Represents interest income from customers/ security deposits etc. which are included in the measure of segment profit or loss.

(b) Not included in the measure of segment profit or loss but provided to the CODM.

B. Segment Revenue:

For all reportable segments except Novelis, the segment revenue is measured in the same way as measured in the Statement of Profit and Loss.

In case of Novelis segment, CODM reviews its financial performance as those are reported under US GAAP, accordingly Novelis segment revenue is measured as the revenue reported under US GAAP financial reporting. The difference between 'Segment Revenue' reported under USGAAP and 'Revenue' reported under Ind AS together with any adjustment item identified between US GAAP and Ind AS is shown as "Adjustment on account of different accounting policies for Novelis Segment".

Sales between operating segments are eliminated on consolidation. Segment Revenue and reconciliation of the same with total revenue as follows:

(₹ in Crore)

	Year ended 31/03/2021			Year ended 31/03/2020		
	Segment Revenue	Inter-segment Revenue	Revenue from external customers	Segment Revenue	Inter-segment Revenue	Revenue from external customers
Novelis	91,130	-	91,130	79,527	-	79,527
Aluminium	20,495	15	20,480	21,804	4	21,800
Copper	22,446	14	22,432	18,533	13	18,520
All Other Segments	230	-	230	288	-	288
Adjustment on account of different accounting policies for Novelis Segment	(2,287)	-	(2,287)	(1,991)	-	(1,991)
Total	132,014	29	131,985	118,161	17	118,144

During the year ended March 31, 2021, there are three customers having more than 10% of the Group's total revenue or more than 10% of either of the reportable segments revenue.

Novelis's ten largest customers accounted for approximately 55% and 65% of its segment's total "Revenue from operations" for the year ended March 31, 2021 and 2020, respectively, out of which two major customer contributes to 16% (₹ 13,781 crore) (31/03/2020: 21%, ₹ 16,550 crore) and 9% (₹ 8,096 crore) (31/03/2020: 10%, ₹ 8,081 crore) of the Novelis segment's total "Revenue from Operations", respectively.

One of the customer in Aluminum segment contributes more than 10% (₹ 2,877 crore) of the Aluminium segment's total "Revenue from Operations".

Similarly in Copper segment also, one of the customer contributes more than 10% (₹ 2,250 crore) of the Copper segment's total "Revenue from Operations".

The Group's operations are located in India and outside India. The amount of its revenue from external customers analysed by the country in which customers are located irrespective of origin of the goods or services are given below:

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
India	28,875	28,872
Outside India	103,110	89,272
	131,985	118,144

C. Segment Assets:

For Aluminium segment and Copper segment, segment assets are allocated based on the operations of the segment and the physical location of the asset. However, certain assets like investments, equity accounted investments, loans, assets classified as held for sale, current and deferred tax assets are not considered to be segment assets as they are managed at corporate level. Further, corporate administrative assets of an entity having operation which are part of more than one reporting segments are not allocated to individual segments as they also managed at corporate levels and does not linked to any specific segment.

For Novelis segment, segment assets of are measured at the amount of total assets of of Novelis Inc. as reported under US GAAP financial reporting. The difference between 'Segment Assets' reported under USGAAP and 'Total Assets' reported under Ind AS together with any adjustment items identified between US GAAP and Ind AS is shown as "Adjustment on account of different accounting policies for Novelis Segment".

In case of All Other segments, Segment assets are measured in the same way as in the financial statements and all the assets are part of this segment as this segments represents the aggregation of subsidiaries which are the separate legal entities and not part of any of above reportable segments.

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Segment assets and reconciliation of the same with total assets as follows:

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Novelis	94,141	82,797
Aluminium	48,430	50,165
Copper	14,982	10,148
All Other Segments	486	391
Total Segment Assets	158,039	143,501
Investment Property	7	8
Investments (Non-Current and Current)	16,857	9,245
Equity Accounted Entities	46	41
Adjustment on account of different accounting policies for Novelis Segment	12,565	12,505
Assets of Discontinued Operations	107	-
Other Corporate Assets	2,078	4,228
Total Assets	189,699	169,528

Following amount are either included in the measure of segment assets reviewed by the CODM or are regularly provided to the CODM:

	As at 31/03/2021	As at 31/03/2020
Investment Property	14	14
Investments (Non-Current and Current)	230	125

During the year ended 31/03/2021, capital expenditure relating to Novelis, Aluminium, Copper and All Other Segments are ₹ 3,903 crore, ₹ 1,405 crore, ₹ 193 crore and ₹ 12 crore, respectively (31/03/2020: ₹ 4,462 crore, ₹ 1,991 crore, ₹ 109 crore and ₹ 28 crore, respectively).

The total of Non-Current assets excluding goodwill, financial assets, equity accounted investments and deferred tax assets analysed by the country in which assets are located are given below.

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
India	43,463	44,050
Outside India - (a)	45,220	34,647
	88,683	78,697

(a) Major geograpgy wise break up of non-current asset located outside India:

United States	21,495	15,832
Asia and Other Pacific	6,968	4,230
Brazil	6,686	6,635
Canada	365	505
Germany	4,583	2,012
Rest of Europe	5,123	5,433
	45,220	34,647

D. Segment Liabilities:

For Aluminium segment and Copper segment, Segment liabilities are allocated based on the operations of the segment. In measurement of Aluminium and Copper segment's liabilities, items like borrowings, current and deferred tax liabilities, liabilities associated with assets classified as held for sale etc. are not considered to be segment liabilities as they are managed at corporate level. Further, corporate administrative liabilities of an entity having operation which are part of more than one reporting segments are not allocated to individual segments as they also managed at corporate levels and does not linked to any specific segment.

In case of Novelis segment, segment liabilities are measured at the amount of all the liabilities of Novelis Inc., except borrowings, as reported under US GAAP financial reporting. The difference between 'Segment Liabilities' reported under USGAAP and 'Total Liabilities' reported under Ind AS together with any adjustment items identified between US GAAP and Ind AS is shown as "Adjustment on account of different accounting policies for Novelis Segment".

In case of All Other segments, Segment liabilities are measured in the same way as in the financial statements and all the liabilities except borrowings are part of this segment.

Segment liabilities and reconciliation of the same with total liabilities as follows:

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Novelis	36,733	30,815
Aluminium	6,565	5,530
Copper	8,091	2,930
All Other Segments	156	147
Total Segment Liabilities	51,545	39,422
Adjustment on account of different accounting policies for Novelis Segment	1,516	849
Liabilities of Discontinued Operations	119	-
Borrowings (Non-Current and Current, including current Maturity)	65,978	67,257
Other Corporate Liabilities	3,998	3,673
Total Liabilities	123,156	111,201

41. Employee Share-Based Payments

Refer Note 1B(W) for accounting policy on Employee Share-based Payments

The Group has formulated employee share-based payment schemes with objective to attract and retain talent and align the interest of employees with the Group as well as to motivate them to contribute to its growth and profitability. The Group views employee stock options as instruments that would enable the employees to share the value they create for the Group in the years to come. At present four employee share-based payment schemes are in operation at Hindalco Industries Limited, the Parent, whereas three employee share-based payment schemes are in operation at Novelis Inc., a subsidiary of the Group. Details of these employee share-based schemes are given below:

A. Employee share-based payments at Parent

Employee Stock Option Scheme 2006 ("ESOS 2006"):

The shareholders of the Company has approved on 23/01/2007 an Employee Stock Option Scheme 2006 ("ESOS 2006") under which the Company may grant 3,475,000 stock options to its permanent employees in the management cadre, whether working in India or out of India, including Managing and the Whole Time Directors of the Company, in one or more tranches. The ESOS 2006 is administrated by the Nomination and Remuneration Committee of the Board of Directors of the Company ("the Committee"). Each stock option when exercised would be converted into one fully paid-up equity share of ₹ 1/- each of the Company. The stock options will vest in 4 equal annual instalments after completion of one year of service from the date of grant. The exercise price shall be average price of the equity shares of the Company in the immediate preceding seven day period on the date prior to the date on which the ESOS compensation committee finalises the specific numbers of Options to be granted to the employees discounted by such percentage not exceeding 30 % (thirty percent) to be determined by ESOS Compensation Committee in the best interest of the various stake holders in the prevailing market conditions. The maximum period of exercise is 5 years from the date of vesting and these stock options do not carry rights to dividends or voting rights till the date of exercise. Further, forfeited/ expired stock options are also available for grant. Further, on 23/09/2011 the ESOS 2006 has been partially modified and by which the Company may grant 6,475,000 stock options to its eligible employees.

Under the ESOS 2006, till 31/03/2021 the Committee has granted 4,328,159 stock options (31/03/2020: 4,328,159 stock options) to its eligible employees out of which 1,819,941 stock options (31/03/2020: 1,819,941 stock options) has been forfeited/ expired and are available for grant as per term of the Scheme. A summary of movement of the stock options and weighted average exercise price (WAEP) is given below:

	Year ended			
	31/03/2021		31/03/2020	
	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	456,956	118.73	816,371	118.71
Granted during the year	-	-	-	-
Forfeited during the year	-	-	-	-
Exercised during the year	(65,652)	118.73	(359,415)	118.69
Expired during the year	-	-	-	-
Outstanding at year end	391,304	118.73	456,956	118.73
Vested and Exercisable at year end	391,304	118.73	456,956	118.73

Under ESOS 2006, as at 31/03/2021 the range of exercise prices for stock options outstanding was ₹ 118.73 (31/03/2020: ₹ 118.73) whereas the weighted average remaining contractual life for the stock options outstanding was 1.02 years (31/03/2020: 1.81 years).

The weighted average share price at the date of exercise of ESOS 2006 was ₹ 173.25 per share (31/03/2020: ₹ 179.07 per share).

Employee Stock Option Scheme 2013 ("ESOS 2013"):

The shareholders of the Company has approved on 10/09/2013 an Employee Stock Option Scheme 2013 ("ESOS 2013"), under which the Company may grant up to 5,462,000 Options (comprising of Stock Options and/ or Restricted Stock Units (RSU)) to the permanent employees in the management cadre and Managing and Whole time Directors of the Company and its subsidiary companies in India and abroad, in one or more tranches. The ESOS 2013 is administered by the Nomination and Remuneration Committee of the Board of Directors of the Company ("the Committee"). The stock options exercise price would be determined by the Committee, whereas the RSUs exercise price shall be the face value of the equity shares of the Company as at the date of grant of RSUs. Each stock option and each RSU entitles the holders to apply for and be allotted one fully paid-up equity share of ₹ 1/- each of the Company upon payment of exercise price during exercise period. The stock options will vest in 4 equal annual instalments after completion of one year of the services from the date of grant, whereas RSU will vest upon completion of three years of services from the date of grant. The maximum period of exercise is 5 years from the date of vesting and these stock option/ RSU do not carry rights to dividends or voting rights till the date of exercise. Further, forfeited/ expired stock options and RSUs are also available for grant.

In terms of ESOS 2013, till 31/03/2021 the Committee has granted 2,250,754 stock options and 2,252,254 RSUs (31/03/2020: 2,250,754 stock options and 2,252,254 RSUs) to the eligible employees of the Company and some of its subsidiary companies. Further, 296,996 stock options and 202,063 RSUs (31/03/2020: 216,409 stock options and 193,287 RSUs) have been forfeited/ expired and are available for grant as per term of the Scheme.

A summary of movement of stock options and RSUs and weighted average exercise price (WAEP) is given below:

	Year ended							
	31/03/2021				31/03/2020			
	Stock Options		RSUs		Stock Options		RSUs	
	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	415,944	124.82	235,718	1.00	601,270	121.89	312,937	1.00
Granted during the year	-	-	-	-	-	-	-	-
Forfeited during the year	(37,086)	144.19	(8,776)	1.00	(17,541)	119.45	-	1.00
Re-instated during the year	-	-	-	-	41,722	119.45	55,667	1.00
Exercised during the year	(224,657)	119.02	(171,251)	1.00	(200,141)	115.37	(132,886)	1.00
Expired during the year	(43,501)	119.45	-	-	(9,366)	119.45	-	-
Outstanding at year end	110,700	132.68	55,691	1.00	415,944	124.82	235,718	1.00
Vested and Exercisable at year end	110,700	132.68	55,691	1.00	396,712	122.82	235,718	1.00

Under ESOS 2013, the range of exercise prices for stock options outstanding as at 31/03/2021 was ₹ 119.45 to ₹ 167.15 (31/03/2020: ₹ 73.60 to ₹ 167.15) whereas exercise price in case of RSUs was ₹ 1 (31/03/2020: ₹ 1). The weighted average remaining contractual life for the stock options and RSUs outstanding as at 31/03/2021 was 1.51 years and 2.54 years respectively (31/03/2020: 2.30 years and 2.57 years respectively).

The weighted average share price at the date of exercise of ESOS 2013 was ₹ 220.69 per share (Number: ₹ 189.67 per share).

Employee Stock Option Scheme 2018 ("ESOS 2018"):

The shareholders of the company has approved on 21/09/2018 an Employee Stock Option Scheme 2018 ("ESOS 2018"), formulated by the company, under which the Company may grant not more than 13,957,302 (Stock Options and Restricted Stock Units) to its permanent employees of the company in management cadre including Managing and the Whole-time Director of the company and its subsidiary companies in India and abroad, in one or more tranches. The ESOS 2018 is administered by the Nomination and Remuneration Committee of the Board of Directors of the Company ("the Committee") and the Hindalco Employees Welfare Trust ("Trust"). The Stock options exercise price would be determined by the Committee whereas the RSU exercise price shall be the face value of the equity shares of the company as at the date of grant of RSUs. Each stock option and each RSU entitles the holders to apply for and be allotted one fully paid-up equity share of Re. 1/- each of the Company upon payment of exercise price during the exercise period. The stock options will vest in 4 equal annual instalments after completion of one year of the services from the date of grant, whereas RSU will vest upon completion of three years of services from the date of grant. The maximum period of exercise is 5 years from the date of vesting and these stock options/RSUs do not carry rights to dividends or voting rights till the date of exercise. Further, forfeited/expired stock options and RSUs are also available for grant.

In terms of ESOS 2018, till 31/03/2021 the Committee has granted 5,189,519 stock options and 1,368,979 RSUs (31/03/2020: 4,607,279 stock options and 1,348,492 RSUs) to the eligible employees of the Company and some of its subsidiary companies. A summary of movement of stock options and RSUs and weighted average exercise price (WAEP) is given below:

	Year ended							
	31/03/2021				31/03/2020			
	Stock Options		RSUs		Stock Options		RSUs	
	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	4,448,494	217.95	1,297,506	1.00	4,299,563	218.75	1,276,137	1.00
Granted during the year	582,240	278.05	20,487	1.00	307,716	207.21	72,355	1.00
Forfeited during the year	(692,325)	218.31	(38,675)	1.00	(158,785)	218.80	(50,986)	1.00
Re-instated during the year	-	-	-	-	-	-	-	-
Exercised during the year	(60,707)	218.80	-	-	-	-	-	-
Expired during the year	-	-	-	-	-	-	-	-
Outstanding at year end	4,277,702	226.06	1,279,318	1.00	4,448,494	217.95	1,297,506	1.00
Vested and Exercisable at year end	1,565,967	218.60	46,058	1.00	1,063,724	218.74	-	-

Under ESOS 2018, the range of exercise prices for stock options outstanding as at 31/03/2021 was ₹ 159.30 to ₹ 278.05 (31/03/2020: ₹ 159.30 to ₹ 218.80) whereas exercise price in case of RSUs was ₹ 1 (31/03/2020: ₹ 1). The weighted average remaining contractual life for the stock options and RSUs outstanding as at 31/03/2021 was 5.43 years and 5.84 years (31/03/2020: 6.26 years and 6.81 years) respectively.

The weighted average share price at the date of exercise of ESOS 2018 was ₹ 332.87 per share.

The fair values at grant date of stock options granted during the year ended 31/03/2021 was ₹ 144.57 to ₹ 181.09 (31/03/2020: ₹ 53.05 to ₹ 97.09) and fair values in case of RSUs was 269.56 (31/03/2020: ₹ 150.68 to ₹ 205.48) respectively. The fair value has been carried out by an independent valuer by applying Black and Scholes Model. The inputs to the model include the exercise price, the term of option, the share price at grant date and the expected volatility, expected dividends and the risk free rate of interest.

The details of options granted, the key assumptions for Fair Value on the date of grant are as under:

	Year ended						
	31/03/2021			31/03/2020			
	Tranche V		Tranche VI	Tranche III		Tranche IV	
	Stock Option	RSU	Stock Option	Stock Option	RSU	Stock Option	RSU
Grant date	10/2/2021	10/2/2021	10/2/2021	27/12/2019	27/12/2019	04/03/2020	04/03/2020
Exercise price (₹)	278.05	1.00	278.05	215.00	1.00	159.30	1.00
Expected terms of options granted (years)	4.43-7.43 yrs	8 years	4.43 yrs	4.43-7.43 yrs	8 years	4.43-7.43 yrs	8 years
Share price on grant date (₹)	279.40	279.40	279.40	215.45	215.45	160.60	160.60
Expected volatility (%)	59.50%	59.50%	59.50%	27.95%	27.95%	30.73%	30.73%
Expected dividend (%)	0.36%	0.36%	0.36%	0.56%	0.56%	0.75%	0.75%
Risk free interest rate (%)	5.46% - 6.17%	6.27%	5.46%	6.44%-6.84%	6.84%	5.62%-6.39%	6.43%

The expected dividend is based on last year data and is not necessarily indicative. The expected volatility was determined based on the historical share price volatility over the past period depending on life of the options granted which is indicative of future periods and which may not necessarily be the actual outcome.

Stock Appreciation Rights 2013 ('SAR 2013'):

The Company had granted 956,522 Share Appreciation Rights ("SAR 2013 ") to its eligible employee to be vested in 4 equal annual instalments after completion of one year of the service from the date of grant (i.e. 09/10/2013). The SAR 2013 is administered by the Nomination and Remuneration Committee of the Board of Directors of the Company ("the Committee"). The SAR 2013 have performance linked vesting conditions which are decided by the committee and are cash settled. The options shall lapse in case of performance linked vesting conditions are not met. The Exercise price of the SAR is ₹ 118.73. The SAR can be exercised within 3 years from the date of vesting or within 6 years from the date of grant, whichever is earlier.

A Summary of movement of SAR 2013 and weighted average exercise price (WAEP) is given below:

	As at 31/03/2021		As at 31/03/2020	
	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	-	-	478,261	118.73
Granted during the year	-	-	-	-
Forfeited during the year	-	-	-	-
Re-instated during the year	-	-	-	-
Exercised during the year	-	-	(478,261)	118.73
Expired during the year	-	-	-	-
Outstanding at year end	-	-	-	-
Vested and Exercisable at year end	-	-	-	-

Stock Appreciation Rights 2018 ('SAR 2018'):

The Company till 31/03/2021 had granted 95,815 Option SAR and 20,514 RSU SAR (31/03/2020: 44,668 Option SAR and 11,333 RSU SAR) under the Share Appreciation Rights Scheme 2018 ("SAR 2018") to its eligible employees. Option SAR to be vested in 4 equal annual instalments after completion of one year of the service from the date of grant and RSU SAR will vest upon completion of three years of services from the date of grant. The SAR 2018 is administered by the Nomination and Remuneration Committee of the Board of Directors of the Company ("the Committee"). The SAR 2018 have performance linked vesting conditions which are decided by the committee and are cash settled. The options shall lapse in case of performance linked vesting conditions are not met. The range of exercise price of the Option SAR is ₹ 159.30 to ₹ 278.05 and RSU SAR is ₹ 1 (31/03/2020: Option SAR is ₹ 218.80 and RSU SAR is ₹ 1).

A Summary of movement of SAR 2018 and weighted average exercise price (WAEP) is given below:

	As at 31/03/2021				As at 31/03/2020			
	Option SAR		RSU SAR		Option SAR		RSU SAR	
	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	44,668	218.80	11,333	1.00	-	-	-	-
Granted during the year	51,147	203.79	9,181	1.00	44,668	218.80	11,333	1.00
Forfeited during the year	(19,163)	193.97	-	-	-	-	-	-
Re-instated during the year	-	-	-	-	-	-	-	-
Exercised during the year	-	-	-	-	-	-	-	-
Expired during the year	-	-	-	-	-	-	-	-
Outstanding at year end	76,652	214.99	20,514	1.00	44,668	218.80	11,333	1.00
Vested and Exercisable at year end	11,167	218.80	-	-	11,167	218.80	-	-

The fair values per Option SAR as at 31/03/2021 was ₹ 144.97 to ₹ 232.47 (31/03/2020: ₹ 6.62 to ₹ 19.87) and for RSU SAR as at 31/03/2021 was ₹ 321.21 to ₹ 322.35 (31/03/2020: ₹ 89.14 to ₹ 89.46). The fair value has been carried out by an independent valuer by applying Black and Scholes Model. The inputs to the model include the exercise price, the term of option, the share price at grant date and the expected volatility, expected dividends and the risk free rate of interest. The assumptions used for fair valuation are given below:

	Year ended					
	31/03/2021					
Grant date	26/03/2019	09/08/2019	09/08/2019	12/06/2020	12/06/2020	10/02/2021
Valuation Date	31/03/2021	31/03/2021	31/03/2021	31/03/2021	31/03/2021	31/03/2021
Exercise price (₹)	1.00	218.80	1.00	159.30	1.00	278.05
Expected volatility (%)	50.90%	50.90%	50.90%	50.90%	50.90%	50.90%
Expected dividend (%)	0.31%	0.31%	0.31%	0.31%	0.31%	0.31%
Risk free interest rate (%)	5.45%	4.27%- 5.70%	5.34%	5.43%- 6.05%	5.45%-5.78%	5.41%

	Yearr ended		
	31/03/2020		
Grant date	09/08/2019	09/08/2019	04/03/2020
Valuation Date	31/03/2021	31/03/2021	31/03/2021
Exercise price (₹)	218.80	1.00	1.00
Expected volatility (%)	41.65%	41.65%	41.65%
Expected dividend (%)	1.25%	1.25%	1.25%
Risk free interest rate (%)	5.29% - 6.09%	6.09%	6.31%

The weighted average remaining contractual life as at 31/03/2021 for the Option SAR is 1.69 to 5.92 years (31/03/2020: 2.70 to 5.70 years) and for RSU SAR is 3.70 to 4.92 years (31/03/2020: 4.70 to 4.99 years).

The total intrinsic value at the end of the year of the vested Option SAR and RSU SAR is ₹ 0.12 crore (31/03/2020 ₹ Nil).

B. Employee share-based payments schemes at Novelis Inc ("Novelis"), a subsidiary of the Group:

The Novelis's Board of Directors has authorized long term incentive plans (LTIPs), under which Hindalco stock appreciation rights (Hindalco SARs), Novelis stock appreciation rights (Novelis SARs), phantom restricted stock units (Phantom RSUs), and Novelis Performance Units (Novelis PUs) are granted to certain executive officers and key employees.

The Hindalco and Novelis SARs vest at the rate of 33% per year, subject to the achievement of an annual performance target, and expire seven years from their original grant date. The performance criterion for vesting of the Hindalco and Novelis SARs is based on the actual overall Novelis operating EBITDA compared to the target established and approved each fiscal year. The minimum threshold for vesting each year is 75% of each annual target operating EBITDA. Each Hindalco SAR is to be settled in cash based on the difference between the market value of one Hindalco share on the date of grant and the market value on the date of exercise. Each Novelis SAR is to be settled in cash based on the difference between the fair value of one Novelis phantom share on the original date of grant and the fair value of a phantom share on the date of exercise. The amount of cash paid to settle Hindalco and Novelis SARs are limited to three times the target payout, depending on the plan year. The Hindalco and Novelis SARs do not transfer any shareholder rights of Hindalco or Novelis to a participant. The Hindalco and Novelis SARs are classified as liability awards and are re-measured at each reporting period until the SARs are settled or cancelled. Novelis expenses each fiscal year's SAR tranche(s) over the employee requisite service period, which results in the expense being recorded on an accelerated basis.

The Phantom RSUs are based on Hindalco's stock price. The Phantom RSUs vest either in full three years from the grant date or 33% per year over three years, subject to continued employment with Novelis, but are not subject to performance criteria. Each Phantom RSU is to be settled in cash equal to the market value of one Hindalco share. The payout on the Phantom RSUs is limited to three times the market value of one Hindalco share measured on the original date of grant. The Phantom RSUs are classified as liability awards and expensed over the employee requisite service period (three years) based on the Hindalco stock price as of each balance sheet date.

In May 2016, the Novelis's board of directors approved the issuance of Novelis PUs which have a fixed USD 100 value per unit and will vest in full three years from the grant date, subject to specific performance criteria compared to the established target. The Novelis PUs awards are not based on the Hindalco or Novelis stock prices and therefore are accounted for in accordance with Ind AS 19 - Employee Benefits.

(a) Hindalco Stock Appreciation Rights (Hindalco SARs)

	Year ended			
	31/03/2021		31/03/2020	
	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	12,441,966	177.11	10,643,730	161.80
Granted during the year	6,934,923	118.11	3,475,995	198.88
Forfeited during the year	(465,886)	179.67	(176,537)	173.98
Exercised during the year	(5,872,477)	150.62	(1,501,222)	119.36
Expired during the year	-	-	-	-
Outstanding at year end	13,038,526	157.56	12,441,966	177.11
Vested and Exercisable at year end	3,220,946	197.10	6,742,807	149.92

(b) Novelis Stock Appreciation Rights (Novelis SARs)

	Year ended			
	31/03/2021		31/03/2020	
	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	33,393	6,532.36	73,948	5,956.99
Granted during the year	-	-	-	-
Forfeited during the year	(3,349)	5,365.91	(7,838)	6,584.23
Exercised during the year	(19,879)	6,781.25	(32,717)	5,946.30
Expired during the year	-	-	-	-
Outstanding at year end	10,165	6,025.13	33,393	6,532.36
Vested and Exercisable at year end	10,165	6,025.13	33,393	3,820.46

(c) Phantom Restricted Stock Units (Phantom RSUs)

	Year ended			
	31/03/2021		31/03/2020	
	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	4,747,316	-	5,306,623	-
Granted during the year	5,016,919	-	2,685,744	-
Forfeited during the year	(124,447)	-	(175,752)	-
Exercised during the year	(2,403,369)	-	(3,069,299)	-
Expired during the year	-	-	-	-
Outstanding at year end	7,236,419	-	4,747,316	-

(d) Particulars of share based payment

i. Carrying amount and intrinsic value of liabilities given below:

(₹ in Crore)

	Year ended			
	31/03/2021		31/03/2020	
	Total carrying amount at the end of the year for liabilities	Total intrinsic value at the end of the year of liabilities (vested portion)	Total carrying amount at the end of the year for liabilities	Total intrinsic value at the end of the year of liabilities (vested portion)
Hindalco SAR	118.49	204.70	16.11	0.35
Novelis SAR	3.36	4.07	7.00	7.31
Phantom RSU	144.70	-	34.70	-
	266.55	208.77	57.81	7.66

ii. Number of options exercised and the weighted average exercise price given below:

	Year ended			
	31/03/2021		31/03/2020	
	Number of options exercised	Weighted average exercise price	Number of options exercised	Weighted average exercise price
Hindalco SAR (price in ₹)	5,872,477	150.62	1,501,222	119.36
Novelis SAR (price in ₹)	19,879	6,781.25	32,717	5,946.30
Phantom RSU (price in ₹)	2,403,369	-	3,069,299	-

(e) **Unrecognised compensation expense**

	Year ended			
	31/03/2021		31/03/2020	
	(₹ in Crore)	Period over which expense will be recognised (in years)	(₹ in Crore)	Period over which expense will be recognised (in years)
Hindalco SAR	37	1.40	3	1.46
Novelis SAR	-	-	-	-
Phantom RSU	78	1.45	15	1.41

(f) Inputs to the model used to determine fair value are as under:

	Year ended			
	31/03/2021		31/03/2020	
	Hindalco SAR	Novelis SAR	Hindalco SAR	Novelis SAR
Risk free interest rate (%)	3.32% - 6.18%	0.03% - 0.08%	4.73% - 6.89%	0.00% - 0.35%
Dividend yield (%)	0.32%	-	1.27%	-
Volatility (%)	40.4% - 57.1%	28.2% - 45.1%	36.33% - 84.50%	24.0% - 40.0%
Source of historical volatility	Hindalco historical volatility	Comparable companies	Hindalco historical volatility	Comparable companies
Model used	Monte Carlo Simulation Model	Monte Carlo Simulation Model	Monte Carlo Simulation Model	Monte Carlo Simulation Model

The weighted average remaining contractual life as at 31/03/2021 for the Hindalco SAR is 4 years (31/03/2020: 4 years) and Novelis SAR is 1 year (31/03/2020: 1 year).

C. Effect of employee share-based payment transactions on profit or loss for the year and on financial position:

For the year ended 31/03/2021, the Group recognised expenses of ₹ 15 crore (31/03/2020: expenses of ₹ 28 crore) related to equity-settled share based transactions, whereas ₹ 286 crore as expenses (31/03/2020: income ₹ 7 crore) towards cash-settled share based transactions accounted for as part of Employee Benefits Expenses. (refer Note 30)

During the year ended 31/03/2021, the Company has allotted 461,560 fully paid-up equity share of ₹ 1/- each of the Company (31/03/2020: 692,442) on exercise of equity settled options for which the Group has realised ₹ 3 crore (31/03/2020: ₹ 6 crore) as exercise prices.

42. Related party transactions

The Group's related parties principally consist of its associates, joint ventures and its key managerial personnel. The Group routinely enters into transactions for sale and purchase of products and rendering and receiving services with these related parties. Transactions and balances between the Parent, subsidiaries and fellow subsidiaries and trusts, which are related parties of the Company, have been eliminated on consolidation. List of all the related parties to be included in consolidated related parties disclosures and details of transactions and balances between the Group and other related parties are disclosed below:

(A) List of Related Parties with joint control and significant influence:

Name of the Related Party	Principal Place of Business
(a) Joint Ventures:	
1. MNH Shakti Limited (MNH Shakti)	India
2. Hydromine Global Minerals (GMBH) Limited (Hydromine)	British Virgin Islands
(b) Associates:	
1. Aditya Birla Science & Technology Company Pvt. Limited	India
2. Aditya Birla Renewable Subsidiary Limited	India
3. Aditya Birla Renewable Utkal Limited	India
4. Aditya Birla Renewable Solar Limited	India
5. France Aluminum Recyclage SPA.	France
6. Deutsche Aluminum Verpachung Recycling GMBH	Germany

(B) Key Managerial Personnel:

	Name of the Related Party	Relationship
1	Mr. Satish Pai - Managing Director	Executive Directors
2	Mr. Praveen Maheshwari -Whole time Director & Chief Financial Officer	Executive Directors
3	Mr. Kumar Mangalam Birla	Non Executive Directors
4	Smt. Rajashree Birla	Non Executive Directors
5	Mr. D Bhattacharya	Non Executive Directors
6	Mr. A.K.Agarwala	Non Executive Directors
7	Mr. K.N. Bhandari	Non Executive Directors
8	Mr. Y.P. Dandiwala	Non Executive Directors
9	Mr. Ram Charan - (Resigned w.e.f. August 14, 2020)	Non Executive Directors
10	Ms. Alka Bharucha	Non Executive Directors
11	Dr. Vikas Balia	Non Executive Directors
12	Mr. Sudhir Mital	Non Executive Directors
13	Mr. Anant Maheshwari (Appointed w.e.f. August 14, 2020)	Non Executive Directors

(C) Other Related Parties with whom there were transactions during the year:

	Name of the Related Party	Relationship
1	Hindalco Employee's Gratuity Fund, Kolkata	Post-Employment Benefit Plan
2	Hindalco Employee's Gratuity Fund, Renukoot	Post-Employment Benefit Plan
3	Hindalco Employee's Provident Fund Institution, Renukoot	Post-Employment Benefit Plan
4	Hindalco Superannuation Scheme, Renukoot	Post-Employment Benefit Plan
5	Hindalco Industries Limited Employees' Provident Fund II	Post-Employment Benefit Plan
6	Hindalco Industries Limited Senior Management Staff Pension Fund II	Post-Employment Benefit Plan
7	Aditya Birla Management Corporation Private Limited @	Other related party in which Director is interested

@ The Company is a member of Aditya Birla Management Corporation Private Limited (ABMCPL), a company limited by guarantee formed for the purpose of its members to mutually avail and share common facilities, expertise and other support on cost basis.

(D) The following transactions were carried out with the related parties in the ordinary course of business

(₹ in Crore)

Nature of Transaction/Relationship	Year ended	
	31/03/2021	31/03/2020
i. **Services rendered**	**10**	**9**
Other related party in which Director is interested	10	9
ii. **Interest and dividend received**		
Interest received	**2**	**3**
Associates	2	3
iii. **Purchase of Materials, Capital Equipment and Others**	**20**	**15**
Associates	20	15
iv. **Contribution to**	**208**	**218**
Post-Employment Benefit Plan	208	218
v. **Services received**	**433**	**488**
Associates	16	17
Other related party in which Director is interested	417	471
vi. **Investments, Deposits and Loans**		
Investments made during the year	**-**	**2**
Associates	-	2
Deposits and Loans, received back during the year	**5**	**5**
Associates	5	5

(E) Outstanding Balances

(₹ in Crore)

Nature of Transaction/Relationship	As at	
	31/03/2021	31/03/2020
Receivables and Advances	**102**	**160**
Other related party in which Director is interested	102	160
Payables	**38**	**30**
Associates	2	2
Other related party in which Director is interested	36	28
Loans and Deposits (Given)	**41**	**46**
Associates	41	46
Other related party in which Director is interested	-	-

All outstanding balances are unsecured and are payable in cash.

(F) Compensation of Key Managerial Personnel of the Company

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
(a) **Remuneration of Executive Directors - (i) and (ii)**	**29**	**38**
Short term employment benefit	27	36
Post employment benefits	2	2
(b) **Remuneration to erstwhile Managing Director - (iii)**	**3**	**3**
Post-employment benefits	3	3
(c) **Remuneration of Non Executive Directors**	**10**	**6**
Commission and Sitting Fees	10	6

(i) Excludes amortisation of fair value of employee share-based payments under Ind AS 102.

(ii) As the liabilities for defined benefit plans are provided on actuarial basis for the Company as a whole, the amounts pertaining to Key Management Personnel are not included.

(iii) The Board approved pension of Mr. D. Bhattacharya of ₹ 0.335 Crore per month and other post-employment benefits for his past service when he was the Managing Director of the Company. The present value of the above pension liability determined based on the actuarial valuation is accounted by the Group in the consolidated financial statements. Amount charged as expenses in the consolidated statement of profit and loss during the year towards such post-employment benefit amounting to ₹ 3 Crore (31/03/2020: ₹ 3 Crore) has been disclosed as a part of managerial remuneration above, and does not include the impact of actuarial (gains)/losses recognised in other comprehensive income.

43. Contingent Liabilities and Commitments

Refer Note 1B(L) for accounting policy on Provisions and Contingencies

A. Contingent Liabilities

The Group are party to, and may in the future be involved in, or subject to, disputes, claims and proceedings arising in the ordinary course of our business, including some we assert against others, such as environmental, health and safety, product liability, employee, tax, personal injury and other matters. The Group has established a liability with respect to contingencies for which a loss is probable and estimable. While the ultimate resolution of and liability and costs related to these matters cannot be determined with certainty, the Management does not believe any of these pending actions, individually or in the aggregate, will materially impact our operations or materially affect our financial condition or liquidity.

The Group's estimates involve significant judgment, and therefore, the estimate will change from time to time and actual losses may differ from the current estimate. Management review the status of, and estimated liability related to, pending claims and civil actions on a quarterly basis. The evaluation model includes all asserted and unasserted claims that can be reasonably identified including claims relating to our responsibility for compliance with environmental, health and safety laws and regulations in the jurisdictions in which the Group operate or formerly operated. The estimated costs in respect of such reported liabilities are not offset by amounts related to insurance or indemnification arrangements unless otherwise noted.

The amount for which the Group is contingently liable are given below:

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
(a) **Claims against the Group not acknowledged as debt**		
Tax matters - Direct Taxes - (i)	2	12
Tax matters - Indirect Taxes - (ii)	640	685
Legal and Other matters - (iii)	300	261

(i) Tax matters - Direct Taxes:

The Group has ongoing disputes with direct tax authorities in various tax jurisdictions relating to tax treatment of certain items in the Company and some of its subsidiaries. These mainly include claims disallowed, tax treatment of certain items of income/expense, use of certain tax incentives or allowances, etc. in their tax computation.

(ii) Tax matters - Indirect Taxes:

There are pending litigations for various matters relating to customs, excise duty and service tax, VAT across various entities in the Group involving demands, including interest and penalties.

(iii) Legal and Other matters:

In addition to above matters certain Group companies are involved in several other legal claims including revenue matters, environmental matters, civil and Labour matters.

(b) For contingent liabilities relating to associates and joint ventures, if any, are given in Note 48 D and 48 E.

B. Commitments

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
The Group's commitments with regard to various items in respect of:		
(a) Estimated amount of contracts remaining to be executed on capital account and not provided for	818	1,179
(b) Purchase commitments in relation to Materials and Services (net of advances)	73,924	67,051
(c) The Company has subscribed to the Rights issue of Aditya Birla Fashion & Retail Limited at ₹ 110 per share (Face value of ₹ 10 and Premium of ₹ 100). Final call amount on 5,257,652 shares at ₹ 27.50 per share is yet to be made.	14	0
(d) The Company has given the following undertaking in connection with the loan of Utkal Aluminium International Limited (UAIL), a wholly owned subsidiary:		
- To hold minimum 51% equity shares in UAIL.		

44. Capital Management

The Group's objective to manage its capital is to ensure continuity of business while at the same time provide reasonable returns to its various stakeholders but keep associated costs under control. In order to achieve this, requirement of capital is reviewed periodically with reference to operating and business plans that take into account capital expenditure and strategic investments. Apart from internal accrual, sourcing of capital is done through judicious combination of equity and borrowing, both short term and long term. Net debt (total borrowings less current investment and cash & cash equivalents) to equity ratio is used to monitor capital. No changes were made to the objectives, policies or processes for managing capital during the years ended March 31, 2021 and March 31, 2020.

	As at 31/03/2021	As at 31/03/2020
Debt Equity ratio	1.01	1.17

As at March 31, 2021 and March 31, 2020, the Group was in compliance with all of its debt covenants for borrowings.

45. Financial Instruments

Refer Note 1B(Q) for accounting policy on Financial Instruments

A Fair Value Measurements

(a) The following table shows the carrying amount of financial assets and financial liabilities by category.

(₹ in Crore)

	Note No	As at 31/03/2021 Amortised Cost	As at 31/03/2021 Fair value through OCI	As at 31/03/2021 Fair value through P&L	As at 31/03/2020 Amortised Cost	As at 31/03/2020 Fair value through OCI	As at 31/03/2020 Fair value through P&L
Financial Assets							
Investments in Equity Instruments	6A & 6B						
Quoted Equity Instruments		-	7,398	-	-	2,991	-
Unquoted Equity Instruments		-	30	-	-	35	-
Investments in Preference Shares	6A & 6B	-	-	25	-	-	25
Investments in Debt Instruments	6A & 6B						
Mutual Funds		-	-	9,085	-	-	6,016
Bonds & Debentures		-	-	164	-	-	210
Government Securities		-	385	-	-	93	-
Cash & Cash Equivalents	13						
Cash & Bank		7,570	-	-	20,199	-	-
Liquid Mutual Funds		-	-	769	-	-	1,104
Bank Balances other than cash & cash equivalents	14	470	-	-	266	-	-
Trade receivables	12	12,725	-	287	9,389	-	12
Loans	7	59	-	-	67	-	-
Derivatives	46	-	-	1,751	-	-	2,431
Other financial assets	8A & 8B	1,417	-	819	1,102	-	-
Total Financial Assets		**22,241**	**7,813**	**12,900**	**31,023**	**3,119**	**9,798**
Financial Liabilities							
Borrowings	18A & 18B						
Long term Borrowings		58,985	-	-	58,379	-	-
Short term Borrowings		6,029	-	-	8,717	-	-
Lease Liabilities	2	1,228	-	-	1,142	-	-
Supplier's Credit	19	255	-	-	-	-	-
Trade Payables	20	23,509	-	4,771	16,089	-	2,211
Derivatives	46	-	-	4,028	-	-	2,355
Other financial Liabilities	21A & 21B	3,628	-	-	3,045	-	-
Total Financial Liabilities		**93,634**	**-**	**8,799**	**87,372**	**-**	**4,566**

(b) The following table shows fair value for financial assets and financial liabilities measured at amortised cost.

(₹ in Crore)

	Note No	As at 31/03/2021 Carrying Value	As at 31/03/2021 Fair Value	As at 31/03/2020 Carrying Value	As at 31/03/2020 Fair Value
Financial Assets					
Loans and Deposits	7 & 8A	340	340	304	304
Financial Liabilities					
Long term Borrowings #	18A	59,907	62,130	58,483	58,076

Fair values for current financial assets and financial liabilities have not been disclosed because their carrying amount are a reasonable approximation of their fair values.

Carrying amount includes current portion of debt shown under other current financial liabilities and excludes deferred payment liabilities.

Fair Value of borrowings does not include interest accrued but not due.

The Company had acquired certain equity instruments for purpose of holding for a longer duration and not for the purpose of selling in near term for short term profit. Such instruments have been categorized as FVTOCI.

B Fair Value Hierarchy

The following table shows the details of financial assets and financial liabilities, including their levels in the fair value hierarchy.

(a) Financial assets and liabilities measured at fair value - Recurring fair value

(₹ in Crore)

	Note No	As at 31/03/2021			As at 31/03/2020		
		Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial Assets							
Investments in Equity Instruments	6A & 6B						
Quoted Equity Instruments		7,398	-	-	2,991	-	-
Unquoted Equity Instruments		-	-	30	-	-	35
Investments in Preference Shares	6A & 6B	-	25	-	-	25	-
Investments in Debt Instruments	6A & 6B						
Mutual Funds		9,081	4	-	5,996	20	-
Bonds & Debentures		-	77	87	6	-	204
Government Securities		262	123	-	-	73	20
Cash & Cash Equivalents	13						
Liquid Mutual Funds		769	-	-	1,104	-	-
Trade Receivables	12	-	287	-	-	12	-
Derivatives	46	-	1,751	-	-	2,431	-
Other Financial Assets	8A & 8B	-	-	819	-	-	-
Total Financial Assets		**17,510**	**2,267**	**936**	**10,097**	**2,561**	**259**
Financial Liabilities							
Derivatives	46	-	4,012	16	-	2,307	48
Trade Payables	20	-	4,771	-	-	2,211	-
Total Financial Liabilities		**-**	**8,783**	**16**	**-**	**4,518**	**48**

(b) Financial assets and liabilities measured at amortised cost for which fair value disclosure is given

(₹ in Crore)

	Note No	As at 31/03/2021			As at 31/03/2020		
		Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial Assets							
Loans and Deposits	7 & 8A	-	-	340	-	-	304
Financial Liabilities							
Long term Borrowings	18A	-	62,130	-	-	58,076	-

Level 1: Hierarchy includes financial instruments valued using quoted market prices. Listed equity instruments and traded debt instruments which are traded in the stock exchanges are valued using the closing price at the reporting date. Mutual funds are valued using the closing NAV.

Level 2: Hierarchy includes financial instruments that are not traded in active market. This includes over the counter (OTC) derivatives, close ended mutual funds and debt instruments valued using observable market data such as yield etc. of similar instruments traded in active market. Borrowings have been fair valued using credit adjusted interest rate prevailing on the reporting date.Trade Receivables and Payables that are realigned based on forward LME/LBMA price movements have been included in Level 2 hierarchy.

Level 3: If one or more significant inputs is not based on observable market data, the instrument is included in level 3. This is the case for unlisted equity instruments and certain debt instruments which are valued using assumptions from market participants. Valuations for certain derivatives for which forward prices are not observable, have been valued using forward prices for a nearby geographical market and adjusted for historical spreads between cash prices of the two markets.

(c) Disclosure of changes in level 3 items for the period ended 31/03/2021 and 31/03/2020 respectively

(₹ in Crore)

	Unquoted Equity Instruments	Unquoted Debt Instruments	Derivatives	Contingent Consideration	Total
As at April 01, 2019	**45**	**84**	**(20)**	**-**	**109**
Acquisitions	-	-	-	-	-
Sale	-	-	(5)	-	(5)
Gain/(losses) recognised in Profit or loss	-	1	31	-	32
Gain/(losses) recognised in OCI	(10)	-	(54)	-	(64)
Transfer from Level 1 & 2	-	189	-	-	189
Transfer to Level 1 & 2	-	(50)	-	-	(50)
As at March 31, 2020	**35**	**224**	**(48)**	**-**	**211**
Acquisitions	-	-	-	-	-
Sale	-	(49)	(13)	-	(62)
Sale of Business	-	-	-	802	802
Gain/(losses) recognised in Profit or loss	-	2	42	20	64
Gain/(losses) recognised in OCI	(5)	-	2	-	(3)
Exchange difference	-	-	1	(3)	(2)
Transfer from Level 1 & 2	-	6	-	-	6
Transfer to Level 1 & 2	-	(96)	-	-	(96)
As at March 31, 2021	**30**	**87**	**(16)**	**819**	**920**

Unrealised Gain/ (loss) recognised in profit and loss relating to assets and liabilities held at the end of reporting period:

As at March 31, 2021		-	5	-	5
As at March 31, 2020		-	5	-	5

Valuation Process

Some of the Group's assets and liabilities are measured at fair value for financial reporting purposes. The Management of the Group has set up a team in the finance department which performs the valuation of financial assets and liabilities.

In estimating the fair value of an asset or a liability, the Group uses market-observable data to the extent it is available. Where Level 1 inputs are not available, the Group engages third party qualified valuers to perform the valuation. The team works closely with the qualified external valuers to establish the appropriate valuation techniques and inputs to the model. The team reports findings to the Management of the Group to explain the cause of fluctuations in the fair value of the assets and liabilities.

Valuation techniques used for valuation of instruments categorised as level 3.

For valuation of investments in equity shares which are unquoted, peer comparison has been performed wherever available. Valuation has been primarily done by considering the net worth of the Company and price to book multiple to arrive at the fair value. In cases where income approach was feasible valuation has been arrived using the earnings capitalisation method. For inputs that are not observable for these instruments, certain assumptions are made based on available information. The most significant of these assumptions are the discount rate and credit spreads used in the valuation process.

For valuation of investments in debt securities categorised as level 3, market polls which represent indicative yields are used as assumptions by market participants when pricing the asset.

Forward prices are not observable for Oswego, New York facility and electricy swaps which is derived based on forward prices of a geographically nearby market with adjustments for histrotiral spreads of cash prices between the two markets. Valuations are adjusted for various factors such as liquidity, bid/offer spreads and credit considerations.

Contingent Consideration is recognised based on discounted value of amount estimated to be receivable. Discount rate used for determination are based on credit risk of the purchaser. Refer Note 50 on Discontinued Operations.

46. Financial Risk Management and Derivative Financial Instruments

Refer Note 1B(R) for accounting policy on Derivatives and Hedge Accounting

A Financial Risk Management

The Group's activities exposes it to various risks such as market risk, liquidity risk and credit risk. This section explains the risks which the Group is exposed to and how it manages the risks.

(a) Market Risk

i Commodity Price Risk

Hindalco's India Operations consist of two businesses – Copper Business and Aluminium Business. The Copper Business works under a "Custom Smelting" model wherein the focus is to improve the processing margin. The timing mis-match risk between the input and output price, which is linked to the same international pricing benchmark, is eliminated through use of derivatives. This off-set hedge model (through use of derivatives) is used to manage the timing mis-match risk for both Commodity (Copper and Precious Metals) and Currency Risk (primarily, USD/INR). The Copper Business also has a portion of View Based exposure for both Commodity and Currency, beyond the above timing mis-match risk. Lower Copper Prices, Stronger USD/INR exchange rate and Higher "Other Input" Prices (eg Coal, furnace oil, natural gas etc) are the major price risks that adversely impact the business. Here, the Company may use derivative instruments, wherever available, to manage these pricing risks. A variety of factors, including the risk appetite of the business and price view, are considered while taking Hedging Decisions. Such View based hedges are usually done for the next 1-8 quarters.

The Aluminium Business is a vertically integrated business model wherein the input and output pricing risks are independent of each other, i.e. are on different pricing benchmarks, if any. Here, the Company may use derivative instruments, wherever available, to manage its pricing risks for both input and output products. Lower Aluminium Prices, Stronger USD/INR exchange rate and Higher Input Prices (e.g. Alumina, Furnance Oil) are the major price risks that adversely impact the Business. Hedging decisions are based on a variety of factors, including risk appetite of the business and price View. Such Hedge decisions are usually done for the next 1-15 quarters.

Embedded Derivatives

Copper concentrate is purchased on future pricing model based on month's average LME (in case of copper) / LBMA (in case of gold and silver). Since, the value of the concentrate changes with response to change in commodity pricing indices, embedded derivatives (ED) is identified and segregated in the contract. The ED so segregated, is treated like commodity derivative and qualify for hedge accounting. These derivatives are put into a Fair Value hedge relationship with respect to inventory.

Novelis business model is conducted under a conversion model which allows us to pass through increases or decreases in the price of aluminium to our customers . Derivative instruments are used to preserve conversion margins and manage timing differences associated with metal price lag related to base aluminium price. Novelis also uses several sources of energy such as natural gas, electricity, fuel oil and transport oil in manufacturing and delivery of its products.

The table below summarises the gain/(loss) impact on account of increase/decrease in the commodity prices on the Group's equity and profit for the period.

(₹ in Crore)

	Increase in Rate/Price	Price Index	Year ended 31/03/2021		Year ended 31/03/2020	
			Change in Statement of Profit & Loss	Change in Other Components of Equity	Change in Statement of Profit & Loss	Change in Other Components of Equity
Aluminium	LME	10%	(45)	(1,325)	(19)	(491)
Copper	LME	10%	(686)	(24)	(218)	(47)
Gold	LBMA/ MCX	10%	(104)	-	(86)	-
Silver	LBMA	10%	(19)	-	(14)	-
Zinc	LME	10%	4	-	-	-
Local Market Premium	Midwest Premium/ European Duty Paid	10%	(2)	-	-	-
Coal	API IV	10%	-	-	-	1
Furnace Oil	AG Platts	10%	-	6	-	10
Electricity	National Grid/ NYMEX	10%	-	4	-	9
Natural Gas	ICE Brent/ Henry NYMEX	10%	1	18	1	19
Diesel Fuel	EIA Flat Tax On- Highway	10%	-	8	-	9

Decrease in prices by 10% will have equal and opposite impact in financial statements. Sensitivity analysis has been computed by stress testing the market price of the underlying price index on the outstanding derivative position as on the reporting date by assuming all other factors constant.

ii Foreign Currency Risk

Exchange rate movements, particularly the United States Dollar (USD) and Euro (EUR) against Indian Rupee (INR) and Euro, the Swiss franc, the Brazilian real and the Korean won against the U.S. dollar have an impact on our operating results.

In India in addition to the foreign exchange inflow from exports, the commodity prices in the domestic market are derived based on the landed cost of imports where LME prices and USD/INR exchange rate are the main factors. In case of conversion business, the objective is to match the exchange rate of outflows and related inflows through derivative financial instruments. With respect to Aluminium business where costs are predominantly in INR, the strengthening of INR against USD adversely affects the profitability of the business and benefits when INR depreciates against USD. The Group enters into various foreign exchange contracts to protect profitability. The Group also enters into various foreign exchange contracts to mitigate the risk arising out of foreign currency exchange rate movement in foreign currency contracts executed with foreign suppliers to procure capital items for its project activities.

In Europe, where the Group has predominantly local currency selling prices and operating costs, it benefits as the Euro strengthens, but is adversely affected as the Euro weakens. For Swiss operations, where operating costs are incurred primarily in the Swiss franc and a large portion of revenues are denominated in the Euro, the Group benefits as the franc weakens but is adversely affected as the franc strengthens. In South Korea, for local currency operating costs and U.S. dollar denominated selling prices for exports, the Group benefits as the won weakens but are adversely affected as the won strengthens. In Brazil, where the Group has predominately U.S. dollar selling prices and local currency manufacturing costs, it benefits as the real weakens, but is adversely affected as the real strengthens.

The Group's exposure to foreign currency risk at the end of the reporting period expressed in INR, is as follows:

(₹ in Crore)

Unhedged Foreign Currency Payable / (Receivable) Currency Pair	As at 31/03/2021	As at 31/03/2020
USD	549	589
EUR	8	(3)
GBP	(2)	28
NOK	1	-
CAD	12	12
AUD	-	1
CHF	11	1
BRL	(14)	-
JPY	(4)	-
	561	628

The table below summarises the gain/(loss) impact on account of increase/decrease in the exchange rates on the Group's equity and profit for the period.

(₹ in Crore)

Currency Pair	Increase in Rate/Price	Year ended 31/03/2021		Year ended 31/03/2020	
		Change in Statement of Profit & Loss	Change in Other Components of Equity	Change in Statement of Profit & Loss	Change in Other Components of Equity
USD_INR	10%	32	(1,110)	105	(1,293)
EUR_INR	10%	4	1	3	5
EUR_USD	10%	291	146	30	15
BRL_USD	10%	34	68	20	102
KRW_USD	10%	91	244	43	157
CAD_USD	10%	9	18	(10)	(15)
GBP_USD	10%	13	-	221	-
CHF_USD	10%	24	4	37	122
CNY_USD	10%	35	-	(12)	(18)
GBP_CHF	10%	6	-	4	-
EUR_CHF	10%	190	37	152	53
EUR_GBP	10%	137	-	117	11
EUR_CNY	10%	9	3	-	6
EUR_KRW	10%	1	2	-	-

Decrease in prices by 10% will have equal and opposite impact in financial statements.Sensitivity analysis has been computed by stress testing the market price of the underlying currency index on the outstanding derivative position and unhedged exposure as on the reporting date by assuming all other factors constant.

iii Interest Rate Risk

a The Group is exposed to interest rate risk on financial liabilities such as borrowings, both short-term and long-term. It maintains a balance of fixed and floating interest rate borrowings and the proportion is determined by current market interest rates, projected debt servicing capability and view on future interest rates. Such interest rate risk is actively evaluated and interest rate swap is taken whenever considered necessary.

The Group is also exposed to interest rate risk on its financial assets that include fixed deposits, bonds , debentures, commerical papaer, mutual funds and liquid investments comprising mainly mutual funds (which are part of cash and cash equivalents). Since, all these are generally for short durations, the Company believes it has manageable and limited interest rate risk.

The table below summarises the (gain)/loss impact on account of decrease/increase in the benchmark interest rates on the Group's equity and profit for the period.

(₹ in Crore)

	Increase in Rate/Price	Year ended 31/03/2021		Year ended 31/03/2020	
		Change in Statement of Profit & Loss	Change in Other Components of Equity	Change in Statement of Profit & Loss	Change in Other Components of Equity
Interest rate on floating rate borrowings	100 bps	(210)	-	(244)	-

Decrease in rates by 100 bps will have equal and opposite impact in financial statements.

b Interbank Offered Rates (IBOR) Reform

The following table contains details of all financial instruments that are referenced to IBOR which have not yet transitioned to an alternative interest rate benchmark (ARR):

Non-derivative assets and liabilties	IBOR Exposure	Carrying Value (₹ in Crore)	Alternative Interest Rate Benchmark
Long Term Foreign Currency Borrowings	USD 1M-6M LIBOR	15,026	Secured Overnight funding Rate (SOFR)
Short Term Foreign Currency Borrowings		4,896	

Derivatives

The Company does have any interest rate hedges oustanding as on the reporting date, accordingly IBOR related impact on hedge accounting including discounting of other derivatives is not expected to be material.

iv Equity Price Risk

The Group's exposure to equity securities price risk arises from movement in market price of related securities classified either as fair value through OCI or as fair value through profit and loss. The Group manages the price risk through diversified portfolio.

The table below summarises the gain/(loss) impact on account of increase/decrease in the equity share prices on the Group's equity and profit for the period.

(₹ in Crore)

	Increase in Rate/Price	Year ended 31/03/2021		Year ended 31/03/2020	
		Change in Statement of Profit & Loss	Change in Other Components of Equity	Change in Statement of Profit & Loss	Change in Other Components of Equity
Investment in Equity securities	10%	-	656	-	266

Decrease in prices by 10% will have equal and opposite impact in financial statements.Sensitivity analysis has been computed by stress testing the market price of the underlying price index on the investment portfolio as on the reporting date.

(b) Liquidity Risk

The Group determines its liquidity requirements in the short, medium and long term. This is done by drawing up cash forecast for short and medium term requirements and strategic financing plans for long term needs.

The Group manages its liquidity risk in a manner so as to meet its normal financial obligations without any significant delay or stress. Such risk is managed through ensuring operational cash flow while at the same time maintaining adequate cash and cash equivalent position. The management has arranged for diversified funding sources and adopted a policy of managing assets with liquidity in mind and monitoring future cash flows and liquidity on a regular basis. Surplus funds not immediately required are invested in certain investments (including mutual fund) which provide flexibility to liquidate at short notice and are included in current investments and cash and cash equivalents. Besides, it generally has certain undrawn credit facilities which can be accessed as and when required; such credit facilities are reviewed periodically.

The Group has developed appropriate internal control systems and contingency plans for managing liquidity risk. This incorporates an assessment of expected cash flows and availability of alternative sources for additional funding, if required.

(i) Financing Arrangement

The Group had access to the following undrawn borrowing facilities at the end of the reporting period:

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Bank Overdraft and other facilities	10,734	2,317

Undrawn limit has been calculated based on the available drawing power and sanctioned amount at each reporting date.

(ii) Maturity Analysis

The table below shows the Group's financial liabilities into relevant maturity groupings based on their contractual maturities for all non-derivative financial liabilities and net settled derivative financial instruments. The amounts disclosed in the table are the contractual undiscounted cash flows. Balances due within 12 months equal their carrying balances as the impact of discounting is not significant.

Contractual maturities of financial liabilities as at March 31, 2021

(₹ in Crore)

	Less than 1 Year	Between 1 and 2 Years	Between 2 and 5 Years	Over 5 Years	Total	Carrying Value
Non Derivatives						
Borrowings #	9,235	15,625	13,505	44,402	82,767	65,978
Lease liabilities	357	244	433	725	1,759	1,228
Supplier's credit	255	-	-	-	255	255
Trade payables	28,280	-	-	-	28,280	28,280
Other financial liabilities	2,531	10	-	123	2,664	2,664
Total Non Derivative liabilities	**40,658**	**15,879**	**13,938**	**45,250**	**115,725**	**98,405**
Derivatives	3,603	400	28	-	4,031	4,028
Total Derivative liabilities	**3,603**	**400**	**28**	**-**	**4,031**	**4,028**

Contractual maturities of financial liabilities as at March 31, 2020

	Less than 1 Year	Between 1 and 2 Years	Between 2 and 5 Years	Over 5 Years	Total	Carrying Value
Non Derivatives						
Borrowings #	11,521	4,777	29,908	40,343	86,549	67,257
Lease liabilities	309	236	421	725	1,691	1,142
Trade payables	18,300	-	-	-	18,300	18,300
Other financial liabilities	2,805	7	2	70	2,884	2,884
Total Non Derivative liabilities	**32,935**	**5,020**	**30,331**	**41,138**	**109,424**	**89,583**
Derivatives	2,108	218	55	-	2,381	2,355
Total Derivative liabilities	**2,108**	**218**	**55**	**-**	**2,381**	**2,355**

Includes Principal and interest payments, short term borrowings, current portion of debt and excludes unamortised fees.

Total cash outflow for leases for year ended 31/03/2021 is ₹ 631 Crore (31/03/2020: is ₹ 558 Crore).

(c) Credit Risk

Credit risks is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligation, and arises principally from the Group's receivables from customers.

Credit risk arises from cash and cash equivalents, contractual cash flows of debt investments, favourable derivative financial instruments and deposits with banks and financial institutions, as well as credit exposures to customers including outstanding receivables.

Credit risk is managed on an group basis.The Group has adopted a policy of dealing only with creditworthy counterparties and obtaining sufficient collateral, where appropriate, as a means of mitigating risk of financial loss from defaults. The Group invests only in those instruments issued by high rated banks/ institutions and government agencies. The Group assesses the credit quality of the customer, taking into account its financial position, past experience and other factors. The Group's investments in debt instruments and certain loans are considered as low risk investments. The credit ratings of the investments are monitored for credit deterioration.

For some trade receivables the Group obtains security in the form of guarantees, deed of undertaking or letters of credit which can be called upon if the counterparty is in default under the terms of the agreement.

For other financial assets, the Group assesses and manages credit risk based on the credit rating. The Group has assessed its other financial assets as high quality, negligible credit risk. The Group periodically monitors the recoverability and credit risks of its other financial assets including security deposits and other receivables. The Group evaluates 12 month expected credit losses for all the financial assets for which credit risk has not increased. In case credit risk has increased significantly, the Group considers life time expected credit losses for the purpose of impairment provisioning.

The Group has used a practical expedient by computing the expected credit loss allowance for trade receivables based on a provision matrix. The provision matrix takes into account historical credit loss experience and adjusted for forward-looking information.

Movement in the allowance for doubtful debts :

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Balance at beginning of the year	(109)	(88)
Impairment losses (recognised)/ reversed on receivables	32	(21)
Amounts written off during the period as uncollectible	-	-
Foreign exchange translation gains and losses	-	-
Balance at end of the year	(77)	(109)

B Derivative Financial Instruments

The Group uses derivative financial instruments such as forwards, futures, swaps, options etc. to hedge its risks associated with foreign exchange fluctuation. Risks associated with fluctuation in the price of the products (copper, aluminium, coal, furnace oil, natural gas, electricity, diesel and precious metals) are minimized by undertaking appropriate derivative instruments. Derivatives embedded in other contracts are treated as separate derivatives when their risks and characteristics are not closely related to their host contracts. In some cases, the embedded derivatives may be designated in a hedge relationship. The fair values of all such derivative financial instruments are recognized as assets or liabilities at the balance sheet date.

The Group also applies hedge accounting using certain foreign currency non-derivative monetary items which are used as hedging instruments for hedging foreign exchange risk.

(a) The Asset and Liability position of various outstanding derivative financial instruments is given below:

(₹ in Crore)

	Nature of Risk being Hedged	As at 31/03/2021		As at 31/03/2020	
		Liability	Asset	Liability	Asset
Current					
Cash flow hedges					
Commodity contracts	Price Risk	(1,730)	72	(239)	1,277
Foreign currency contracts	Exchange rate movement risk	(147)	179	(833)	36
Fair value Hedges					
Commodity contracts	Price Risk	(99)	285	(78)	46
Foreign currency contracts	Exchange rate movement risk	(10)	-	-	46
Embedded derivatives *	Price Risk	(411)	120	(11)	526

(₹ in Crore)

	Nature of Risk being Hedged	As at 31/03/2021		As at 31/03/2020	
		Liability	Asset	Liability	Asset
Non-designated hedges					
Commodity contracts	Price Risk	(1,405)	797	(699)	862
Foreign currency contracts	Exchange rate movement risk	(210)	162	(251)	115
Embedded derivatives *	Price Risk	-	-	-	14
Total		**(4,012)**	**1,615**	**(2,111)**	**2,922**
Non - current					
Cash flow hedges					
Commodity contracts	Price Risk	(391)	10	(63)	39
Foreign currency contracts	Exchange rate movement risk	(31)	224	(184)	8
Non-designated hedges					
Commodity contracts	Price Risk	(5)	22	(6)	2
Foreign currency contracts	Exchange rate movement risk	-	-	(2)	-
Total		**(427)**	**256**	**(255)**	**49**
Grand Total		**(4,439)**	**1,871**	**(2,366)**	**2,971**

*Fair Value Loss of Embeded Derivatives of ₹ (291) crore (31/03/2020: Gain ₹ 529 crore) accounted for as part of Trade Payables.

(b) Outstanding position and fair value of various foreign exchange derivative financial instruments:

	Currency Pair	As at 31/03/2021			As at 31/03/2020		
		Average exchange rate	Notional Value (in Million)	Fair Value Gain/ (Loss) (₹ Crore))	Average exchange rate	Notional Value (in Million)	Fair Value Gain/ (Loss) (₹ Crore))
Foreign Currency Forwards							
Cash flow hedges							
Buy	CHF_EUR	0.93	68	(13)	0.92	50	8
Buy	USD_CHF	0.89	3	(1)	0.96	4	-
Buy	BRL_USD	0.18	223	(91)	0.24	236	(468)
Buy	EUR_USD	1.21	116	(19)	1.12	18	2
Buy	USD_CAD	1.28	28	4	1.32	22	(12)
Buy	USD_KRW	1,129.30	490	(12)	1,174.47	328	(82)
Buy	USD_CNY	-	-	-	7.01	19	2
Buy	EUR_CNY	7.91	4	-	8.12	8	(2)
Buy	EUR_INR	90.82	1	-	85.62	9	-
Buy	EUR_KRW	-	4	-	-	-	-
Sell	USD_INR	81.45	1,069	357	79.85	1,557	(300)
Total				**225**			**(852)**
Fair value hedges							
Buy	USD_INR	74.45	159	(10)	73.18	132	46
Total				**(10)**			**46**
Foreign Currency Swaps							
Cash flow hedges							
Sell	USD_INR	-	-	-	63.51	118	(109)
Total				**-**			**(109)**

	Currency Pair	As at 31/03/2021			As at 31/03/2020		
		Average exchange rate	Notional Value (in Million)	Fair Value Gain/ (Loss) (₹ Crore))	Average exchange rate	Notional Value (in Million)	Fair Value Gain/ (Loss) (₹ Crore))
Foreign Currency Options							
Cash flow hedges							
Sell	USD_INR	-	-	-	72.79	50	(12)
Total				**-**			**(12)**
Non-Designated							
Buy	AUD_INR	-	-	-	45.74	0	-
Buy	EUR_INR	88.57	8	(1)	85.44	9	(1)
Buy	GBP_INR	98.46	0	-	93.21	0	-
Buy	USD_INR	72.98	28	1	75.83	248	12
Buy	GBP_EUR	1.14	214	39	1.15	171	(22)
Buy	USD_KRW	1,108.75	184	(29)	1,174.47	90	(48)
Buy	EUR_USD	1.33	232	(49)	1.14	36	8
Buy	GBP_USD	1.35	19	(3)	1.30	16	6
Buy	USD_CHF	0.89	17	(6)	0.96	1	(1)
Buy	CAD_USD	0.72	16	11	0.75	14	(7)
Buy	USD_BRL	5.88	107	9	4.35	46	(82)
Buy	EUR_KRW	-	2	-	-	2	-
Buy	CHF_GBP	0.78	9	1	0.85	5	1
Buy	CHF_EUR	0.95	345	(17)	0.94	221	9
Buy	USD_CNY	6.84	99	(1)	7.20	12	(1)
Buy	EUR_CNY	8.04	12	(1)	-	-	-
Buy	SGD_INR	55.85	1	-	-	-	-
Sell	USD_INR	73.07	51	(2)	75.56	157	(12)
Total				**(48)**			**(138)**
Grand Total				**167**			**(1,065)**

(c) Outstanding position and fair value of various foreign exchange non-derivative financial instruments used as hedging instruments:

	Note No	Currency Pair	As at 31/03/2021			As at 31/03/2020		
			Average exchange rate	Notional Value (in Million)	Fair Value Gain/ (Loss) (₹ in Crore)	Average exchange rate	Notional Value (in Million)	Fair Value Gain/ (Loss) (₹ in Crore)
Foreign currency monetary items								
Cash flow hedges								
Debt	18B	USD_INR	73.13	580	11	71.52	659	(254)
Liability for Copper Concentrate	20	USD_INR	72.84	680	(19)	73.86	267	(47)
Total					**(8)**			**(301)**

(d) Outstanding position and fair value of various commodity derivative financial instruments

i Outstanding position and fair value of various commodity derivative financial instruments as at March 31, 2021:

		Currency	Average Price/ Unit	Quantity	Unit	Notional value (in Million)	Fair Value Gain/ (Loss) (₹ in Crore)
Commodity Futures/Forwards/Swaps							
Cash Flow Hedge							
Aluminium	Sell	USD	2,051	1,140,878	MT	2,340	(2,058)
Aluminium	Buy	USD	2,188	9,564	MT	21	20
Copper	Sell	USD	8,332	5,875	MT	49	(19)
Furnace Oil	Buy	USD	223	40,000	MT	9	33
Diesel Fuel	Buy	USD	3	4,788,000	Gallons	15	5
Natural gas	Buy	USD	3	12,900,000	MMBtu	34	3
Electricity	Buy	USD	28	226,420	Mwh	6	(16)
Total							**(2,032)**
Fair Value Hedge							
Gold	Sell	INR	4,841,222	7,109	KGS	34,416	260
Silver	Sell	USD	25	1,032,196	TOZ	26	2
Copper	Sell	USD	8,564	46,325	MT	397	(76)
Total							**186**
Non-Designated							
Aluminium	Buy	USD	2,181	160,664	MT	350	162
Aluminium	Sell	USD	1,994	197,499	MT	394	(616)
Copper	Buy	USD	8,899	34,450	MT	307	18
Copper	Sell	USD	8,544	38,725	MT	331	(71)
Gold	Buy	INR	4,633,701	4,608	KGS	21,352	(78)
Silver	Buy	USD	26	1,037,171	TOZ	27	(12)
Silver	Sell	USD	24	1,162,387	TOZ	28	(5)
Furnace Oil	Buy	USD	271	7,446	MT	2	5
Furnace Oil	Sell	USD	373	7,446	MT	3	-
Local Market Premiums	Sell	USD	225	11,250	MT	3	(2)
Local Market Premiums	Buy	USD	468	75	MT	-	-
Zinc	Buy	USD	2,795	2,550	MT	7	9
Diesel Fuel	Buy	USD	3	252,000	Gallons	-	-
Natural Gas	Buy	USD	3	420,000	MMBtu	1	(1)
Total							**(591)**
Commodity Options							
Cash Flow Hedge							
Aluminium	Sell	USD	2,200	45,000	MT	99	(7)
Total							**(7)**
Embedded derivatives							
Fair Value Hedge							
Copper	Sell	USD	8,434	113,831	MT	960	(302)
Gold	Sell	USD	1,724	38,284	TOZ	66	5
Silver	Sell	USD	26	498,103	TOZ	13	6
Total							**(291)**
Grand Total							**(2,735)**

ii Outstanding position and fair value of various commodity derivative financial instruments as at March 31, 2020:

		Currency	Average Price/ Unit	Quantity	Unit	Notional value (in Million)	Fair Value Gain/ (Loss) (₹ in Crore)
Commodity Futures/Forwards/Swaps							
Cash Flow Hedge							
Aluminium	Sell	USD	1,642	660,058	MT	1,084	1,256
Aluminium	Buy	USD	1,492	62,690	MT	94	(108)
Copper	Sell	USD	5,261	19,650	MT	103	46
Furnace Oil	Buy	USD	257	118,867	MT	31	(65)
Coal	Buy	USD	72	20,000	MT	1	-
Regassified Liquified Natural gas	Buy	USD	35	45,000	BBL	2	-
Diesel Fuel	Buy	USD	3	6,552,000	Gallons	17	(29)
Natural gas	Buy	USD	2	14,730,000	MMBtu	25	(39)
Electricity	Buy	USD	28	498,124	Mwh	14	(47)
Total							**1,014**
Fair Value Hedge							
Gold	Sell	INR	4,152,737	4,808	KGS	19,966	(77)
Silver	Sell	USD	18	1,709,254	TOZ	30	45
Total							**(32)**
Non-Designated							
Aluminium	Buy	USD	1,522	74,992	MT	114	(134)
Aluminium	Sell	USD	1,565	95,524	MT	150	254
Copper	Buy	USD	4,965	9,350	MT	47	(9)
Copper	Sell	USD	5,275	12,750	MT	67	32
Gold	Buy	INR	4,238,148	2,885	KGS	12,227	27
Silver	Buy	USD	13	201,115	TOZ	3	1
Silver	Sell	USD	18	177,427	TOZ	3	6
Furnace Oil	Buy	USD	279	13,962	MT	4	(12)
Furnace Oil	Sell	USD	171	12,830	MT	2	1
Coal	Buy	USD	76	50,000	MT	4	(2)
Coal	Sell	USD	69	50,000	MT	3	(1)
Regassified Liquified Natural gas	Buy	USD	34	6,500	BBL	0	-
Natural Gas	Buy	USD	2	510,000	MMBtu	1	(4)
Total							**159**
Embedded derivatives							
Fair Value Hedge							
Copper	Sell	USD	5,726	84,801	MT	486	501
Gold	Sell	USD	1,596	42,835	TOZ	68	7
Silver	Sell	USD	17	294,397	TOZ	5	7
Total							**515**
Non-Designated							
Copper	Sell	USD	5,654	2,536	MT	14	14
Total							**14**
Grand Total							**1,670**

(e) The following table presents details of amount held in Effective portion of Cash Flow Hedge and Cost of Hedging Reserve and the period during which these are going to be released and affecting Statement of Profit and Loss.

(₹ in Crore)

Cash Flow Hedge	Products/ Currency Pair	As at 31/03/2021			As at 31/03/2020		
		Closing Value Cash Flow Hedges	Release		Closing Value Cash Flow Hedges	Release	
			Within 12 Months	After 12 Months		Within 12 Months	After 12 Months
		Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)
Hedge Instrument Type							
Commodity Forwards	Aluminium	(2,154)	(1,847)	(307)	1,190	1,209	(19)
	Copper	(19)	(19)	-	46	46	-
	Furnace Oil	33	33	-	(64)	(63)	(1)
	Diesel Fuel	2	2	-	(30)	(25)	(5)
	Electricity	(30)	(30)	-	(64)	(34)	(30)
	Natural Gas	-	(5)	5	(45)	(28)	(17)
Total		**(2,168)**	**(1,866)**	**(302)**	**1,033**	**1,105**	**(72)**
Non derivative financial instruments							
Debt	USD_INR	11	11	-	(254)	(254)	-
Liability for Copper	USD_INR	5	5	-	(59)	(59)	-
Total		**16**	**16**	**-**	**(313)**	**(313)**	**-**
Hedge Instrument Type							
Currency Forwards	USD_INR	357	134	223	(300)	(172)	(128)
	EUR_INR	-	-	-	(1)	(1)	-
	USD_EUR	(12)	(12)	-	2	2	-
	USD_BRL	(103)	(55)	(48)	(498)	(346)	(152)
	USD_CAD	4	4	-	(12)	(12)	-
	USD_KRW	(12)	-	(12)	(82)	(82)	-
	USD_CHF	(1)	(1)	-	-	-	-
	EUR_CHF	(15)	(15)	-	9	9	-
	EUR_CNY	-	-	-	1	-	1
Currency Swaps	USD_INR	-	-	-	(139)	(139)	-
Currency Options	USD_INR	-	-	-	(10)	(10)	-
Total		**218**	**55**	**163**	**(1,030)**	**(751)**	**(279)**
Total		**(1,934)**	**(1,795)**	**(139)**	**(310)**	**41**	**(351)**
Deferred Tax on above		688	545	143	180	9	171
		(1,246)	**(1,250)**	**4**	**(130)**	**50**	**(180)**

(₹ in Crore)

Cost of Hedging Reserve	Products/ Currency Pair	As at 31/03/2021			As at 31/03/2020		
		Closing Value Cost of Hedge Reserve	Release		Closing Value Cost of Hedge Reserve	Release	
			Within 12 Months	After 12 Months		Within 12 Months	After 12 Months
		Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)	Gain/(Loss)
Hedge Instrument Type							
Commodity Forwards	Silver	-	-	-	1	1	-
	Copper	22	22	-			
Commodity Options	Aluminium	(7)	(7)	-			
Currency Swaps	USD_INR	-	-	-	184	184	-
Currency Options	USD_INR	-	-	-	(2)	(2)	-
Total		**15**	**15**	**-**	**183**	**183**	**-**
Deferred Tax on above		(5)	(5)	-	(64)	(64)	-
		10	**10**	**-**	**119**	**119**	**-**

(f) The following tables presents the amount of gain/(loss) recognized in Effective portion of Cash Flow Hedge and Cost of Hedging Reserve and recycled during the financial year 2020-21:

(₹ in Crore)

	Opening Balance	Net Amount recognised	Net Amount to P&L	Amount added to Non-Financial Assets	Total Amount recycled	CTA	Closing Balance
Cash Flow Hedges							
Commodity	1,033	(4,369)	(1,169)	11	(1,158)	10	(2,168)
Forex	(1,343)	989	(442)	(137)	(579)	9	234
Total	**(310)**	**(3,380)**	**(1,611)**	**(126)**	**(1,737)**	**19**	**(1,934)**
Deferred Tax on above	180	978	477	(16)	461	(9)	688
Total	**(130)**	**(2,402)**	**(1,134)**	**(142)**	**(1,276)**	**10**	**(1,246)**
Cost of Hedging Reserve							
Commodity	1	48	34	-	34	-	15
Forex	182	7	189	-	189	-	-
Total	**183**	**55**	**223**	**-**	**223**	**-**	**15**
Deferred Tax on above	**(64)**	**(19)**	**(78)**	**-**	**(78)**	**-**	**(5)**
Total	**119**	**36**	**145**	**-**	**145**	**-**	**10**

The following tables presents the amount of gain/(loss) recognized in Effective portion of Cash Flow Hedge and recycled during the financial year 2019-20:

(₹ in Crore)

	Opening Balance	Net Amount recognised	Net Amount to P&L	Amount added to Non-Financial Assets	Total Amount recycled	CTA	Closing Balance
Cash Flow Hedges							
Commodity	432	1,657	1,108	(26)	1,082	26	1,033
Forex	(183)	(1,821)	(632)	(65)	(697)	(36)	(1,343)
Total	**249**	**(164)**	**476**	**(91)**	**385**	**(10)**	**(310)**
Deferred Tax on above	(49)	94	(141)	14	(127)	8	180
Total	**200**	**(70)**	**335**	**(77)**	**258**	**(2)**	**(130)**

(₹ in Crore)

	Opening Balance	Net Amount recognised	Net Amount to P&L	Amount added to Non-Financial Assets	Total Amount recycled	CTA	Closing Balance
Cost of Hedging Reserve							
Commodity	-	3	2	-	2	-	1
Forex	772	94	684	-	684	-	182
Total	**772**	**97**	**686**	**-**	**686**	**-**	**183**
Deferred Tax on above	(270)	(34)	(240)	-	(240)	-	(64)
Total	**502**	**63**	**446**	**-**	**446**	**-**	**119**

(g) The following table presents the amount of gain/ (loss) recycled from Effective portion of Cash Flow Hedge and Cost of Hedging Reserve and reference of the line item in the Statement of Profit and Loss where those amounts are included:

(₹ in Cro re)

	Year ended 31/03/2021	Year ended 31/03/2020
Revenue from Operations	(882)	1,283
Cost of Materials Consumed	(509)	(117)
Other Expenses	3	(4)
	(1,388)	**1,162**

(h) The adjustment as part of the carrying value of inventories arising on account of fair value hedges is as follows:

(₹ in Crore)

Increase/ (Decrease) in Inventory Value	As at 31/03/2021			As at 31/03/2020		
	Raw Material	WIP and Finished Goods	Total	Raw Material	WIP and Finished Goods	Total
Copper	302	103	405	(501)	-	(501)
Gold	(5)	(93)	(98)	(7)	6	(1)
Silver	(6)	-	(6)	(7)	(43)	(50)
Total	**291**	**10**	**301**	**(515)**	**(37)**	**(552)**

The Group's hedging policy only allows for effective hedge relationships to be established. The effective portion of hedge is recognised in OCI, while ineffective portion of hedge is recognised immediately in the Statement of Profit and Loss. For Cash flow hedges, the Group uses hypothetical derivative method to assess effectiveness based on "lower off" assessment.

Sources of Hedge ineffectiveness summarised by risk category are as follows :

Risk Category	Sources of Hedge Ineffectiveness	Type of Hedge
Price Risk	Critical terms Mismatch	Cash Flow and Fair Value Hedge
	Basis Risk	Fair Value Hedge
	Credit Risk Adjustment	Cash Flow and Fair Value Hedge
Exchange Risk	Credit Risk Adjustment	Cash Flow Hedge

The amount of gain/ (loss) recognised in the Statement of Profit and Loss on account of hedge ineffectiveness is as follows:

(₹ in Crore)

Note No	Note Description	Particulars	Type of Hedge	Year ended 31/03/2021	Year ended 31/03/2020
36	Other Expenses	Gain/(Loss) on Derivatives	Cash Flow Hedge	(316)	83
36	Other Expenses	Gain/(Loss) on Derivatives	Fair Value Hedge	(33)	(12)
				(349)	**71**

(i) Certain hedges of forecast sale transaction for hedging currency risk and forecast transaction to purchase furnace oil were discontinued during the year since the hedged forecast transaction was not expected to occur.

47. Offsetting

Refer Note 1B(Q) for accounting policy on Financial Instruments

Financial instruments subject to offsetting , enforceable master netting arrangement and similar arrangement.

(₹ in Crore)

As at March 31, 2021:	Effects on Balance sheet			Related amounts not offset		
	Gross amount	Gross amount set off in the balance sheet	Net amount in the balance sheet	Amounts subject to master netting	Financial Instrument collateral	Net Amount
Financial Assets						
Derivatives	1,832	(80)	1,752	(593)	-	1,159
Financial Liabilities						
Derivatives	4,108	(80)	4,028	(593)	(267)	3,168

(₹ in Crore)

As at March 31, 2020:	Effects on Balance sheet			Related amounts not offset		
	Gross amount	Gross amount set off in the balance sheet	Net amount in the balance sheet	Amounts subject to master netting	Financial Instrument collateral	Net Amount
Financial Assets						
Derivatives	2,509	(78)	2,431	(540)	-	1,891
Financial Liabilities						
Derivatives	2,433	(78)	2,355	(540)	(161)	1,654

48. Interest in Other Entities

A. Subsidiaries:

The Group's wholly-owned subsidiaries along with country of incorporation, place of operation and principal activities for the year ended March 31, 2021 and March 31, 2020 are set out below

Name of Entity	Principal Activity	Country of Incorporation	Place of Operation
Minerals & Minerals Limited	Mining	India	India
Renukeshwar Investments & Finance Limited	Investment	India	India
Renuka Investments & Finance Limited	Investment	India	India
Lucknow Finance Company Limited	Investment	India	India
Dahej Harbour and Infrastructure Limited	Cargo services	India	India
Utkal Alumina International Limited	Manufacturing	India	India
Utkal Alumina Social Welfare Foundation	Welfare	India	India

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Name of Entity	Principal Activity	Country of Incorporation	Place of Operation
Kosala Livelihood And Social Foundation *	Welfare	India	India
AV Minerals (Netherlands) N.V.	Investment	Netherland	Netherland
Hindalco Do Brasil Industria Comercia de Alumina Ltda .	Subsidiary	Brazil	Brazil
AV Metals Inc.	Investment	Canada	Canada
Novelis Inc.	Manufacturing	Canada	Canada
Novelis do Brasil Ltda.	Manufacturing	Brazil	Brazil
Brecha Energetica Ltda.	Distribution Services	Brazil	Brazil
4260848 Canada Inc.	Management Company	Canada	Canada
4260856 Canada Inc.	Management Company	Canada	Canada
8018227 Canada Inc.	Management Company	Canada	Canada
Novelis (China) Aluminum Products Co., Ltd.	Manufacturing	China	China
Novelis (Shanghai) Aluminum Trading Co., Ltd.	Import and export aluminum	China	China
Novelis Laminés France SAS	Distribution Services	France	France
Novelis PAE SAS	Engineering	France	France
Novelis Aluminium Beteiligungsgesellschaft mbH	Dormant	Germany	Germany
Novelis Deutschland GmbH	Manufacturing	Germany	Germany
Novelis Sheet Ingot GmbH	Manufacturing	Germany	Germany
Novelis (India) Infotech Ltd.	Dormant	India	India
Novelis Aluminum Holding Unlimited Company	Intermediate subsidiary	Ireland	Ireland
Novelis Italia SpA	Manufacturing	Italy	Italy
Novelis de Mexico S.A. de C.V.	Dormant	Mexico	Mexico
Novelis Korea Limited	Manufacturing	South Korea	South Korea
Novelis AG	Management Company	Switzerland	Switzerland
Novelis Switzerland S.A.	Manufacturing	Switzerland	Switzerland
Novelis MEA Ltd.	Import and export aluminum	UAE	UAE
Novelis Europe Holdings Limited	Intermediate subsidiary	UK	UK
Novelis UK Ltd.	Manufacturing	UK	UK
Novelis Services Limited	Management Company	UK	UK
Novelis Corporation	Manufacturing	USA	USA
Novelis South America Holdings LLC	Intermediate subsidiary	USA	USA
Novelis Holdings Inc.	Intermediate subsidiary	USA	USA
Novelis Services (North America) Inc.	Cash management service provider	USA	USA
Novelis Global Employment Organization, Inc.	Management Company	USA	USA
Novelis Services (Europe) Inc.	Management Company	USA	USA
Novelis Vietnam Company Limited	Manufacturing	Vietnam	Vietnam
Aleris Asia Pacific International (Barbados) Ltd. $	Holding Company	Barbados	Barbados
Aleris Aluminum (Zhenjiang) Co., Ltd. $	Manufacturing	China	China
Aleris (Shanghai) Trading Co., Ltd. $	Management Company	China	China
Aleris Asia Pacific Limited $	Holding Company	Hong Kong	Hong Kong
Aleris Aluminum Japan, Ltd. $	Sales Office	Japan	Japan
Aleris Aluminum Denmark ApS $	Sales Office	Denmark	Denmark
Aleris Aluminum France S.à.r.L. $	Sales Office	France	France
Aleris Casthouse Germany GmbH $	Manufacturing	Germany	Germany

Name of Entity	Principal Activity	Country of Incorporation	Place of Operation
Aleris Deutschland Holding GmbH $	Holding Company	Germany	Germany
Aleris Rolled Products Germany GmbH $	Manufacturing	Germany	Germany
Aleris Aluminum Netherlands B.V. $	Management Company	Netherlands	Netherlands
Aleris Aluminum Poland sp. z.o.o. $	Sales Office	Poland	Poland
Aleris Switzerland GmbH $	Management Company	Switzerland	Switzerland
Aleris Aluminum UK Limited $	Sales Office	UK	UK
Aleris Holding Canada ULC $	Holding Company	Canada	Canada
Aleris Corporation $	Manufacturing	USA	USA
Aleris International Inc. $	Manufacturing	USA	USA
Aleris Rolled Products,LLC $	Manufacturing	USA	USA
Aleris RM, Inc. $	Management Company	USA	USA
Aleris Rolled Products, Inc. $	Management Company	USA	USA
Nichols Aluminum LLC $	Management Company	USA	USA
Aleris Rolled Products Sales Corporation $	Management Company	USA	USA
IMCO Recycling of Ohio, LLC $	Manufacturing	USA	USA
Name Acquisition Co. $	Holding Company	USA	USA
Nichols Aluminum-Alabama LLC $	Dormant	USA	USA
UWA Acquisition Co. $	Holding Company	USA	USA

* Entity incorporated during the year

$ Represents subsidiaries acquired through acquisition of Aleris.

During the year ended March 31, 2021:

a. Novelis Acquisitions LLC – Company merged into Aleris Corporation after Aleris acquisition on April 14, 2020.

b. Aleris Aluminum Duffel BV and Aleris Aluminum Italy S.r.l. - companies was sold to LIBERTY (Alvance) on September 30, 2020.

c. Aleris Rolled Products Canada ULC and Aleris Rolled Products Mexico, S.de R.L.de C.V. were divested as part of the sale of the Lewisport Plant to Velocium ABS Corp. on December 1, 2020.

d. Aleris Worldwide, Inc. merged into Aleris Ohio Management, Inc. on December 12, 2020.

e. Intl Acquisition Co. merged into Aleris International, Inc. on December 12, 2020.

f. Aleris Ohio Management, Inc. merged into Aleris International, Inc. on December12, 2020.

g. Aleris Deutschland Vier GmbH & Co. KG was dissolved on December 15, 2020.

h. Dutch Aluminum C.V. was dissolved on December 11, 2020.

i. Aleris Holding Luxembourg S.à r.l. was liquidated on December 31, 2020.

j. Aleris Deutschland Vierte Verwaltungs GmbH merged into Aleris Deutschland Holding GmbH on Febraury 2, 2021.

B. Non-Controlling Interests (NCI)

The Group has following non-wholly owned subsidiaries:

Name of Entity	Principal Activity	Country of Incorporation	Ownership interest held by the Group	
			31/03/2021	31/03/2020
Suvas Holdings Limited	Power Generation	India	74.00%	74.00%
Hindalco-Almex Aerospace Limited	Manufacturing	India	97.18%	97.18%
East Coast Bauxite Mining Company Private Limited	Mining	India	74.00%	74.00%

None of above non-wholly owned subsidiary is material to the Group, therefore financial information about these non-wholly owned subsidiary are not disclosed separately.

C. Joint Operations

The Group is engaged in various arrangements on a joint basis with other companies. In assessing whether joint control exists for these arrangements, management evaluate the structure and legal framework and contracts governing the arrangement combined with an assessment of which decisions that significantly influence the return from the arrangement. The Group assesses whether joint arrangements are joint operations where the Group has rights to the assets and obligations for the liabilities related to the arrangement, or a joint venture where the group have an interest in the net assets of the joint arrangement. Accordingly, the Group has identified following joint arrangements as joint operations:

Name of the joint operations	Principal Activity	Country of Incorporation	Group's proportion of ownership interest and voting power	
			31/03/2021	31/03/2020
Mahan Coal Limited - (a)	Mining	India	50.00%	50.00%
Tubed Coal Mines Limited - (a)	Mining	India	60.00%	60.00%
Aluminium Norf GmbH - (b)(i)	Rolling and recycling	Germany	50.00%	50.00%
Logan Aluminium Inc. - (b)(ii)	Rolling and finishing	USA	40.00%	40.00%
Ulsan Aluminium Limited - (b)(iii)	Rolling and recycling	South Korea	50.00%	50.00%
AluInfra Services SA - (b)(iv)	Service Company	Switzerland	50.00%	50.00%

(a) During year ended march 31, 2019 Mahan Coal Limited and Tubed Coal Mines Limited were classified as held for sale. During the previous year these entities were reclassified as Joint operations and accordingly share in assets, liabilities, income and expenses in these entities are included in respective line items of the consolidated financial statements.

(b) Novelis Inc, a subsidiary of the Group, is engaged in following arrangements that are concluded to be joint operations.

i. Aluminium Norf GmbH ("Alunorf"), a large rolling mill in Germany, is a joint operation between Novelis and Hydro Aluminium Deutschland GmbH ("Hydro"). Both Novelis and Hydro hold a 50% interest in equity, profits and losses, shareholder voting and management control. Novelis shares control of the management of Alunorf with Hydro through a jointly-controlled shareholders' committee and supervisory board. Management of Alunorf is led jointly by two managing executives, one nominated by Novelis and one nominated by Hydro. The primary objective of Alunorf is to provide tolling services (output) exclusively to Novelis and Hydro as the total output capacity is allocated between Novelis and Hydro. This indicates that both Novelis and Hydro get substantially all of the economic benefits from the assets of the joint arrangement. The major or sole sources of cash inflows for Alunorf are Novelis and Hydro, who are legally obliged to cover production costs.

ii. Logan Aluminium Inc ("Logan"), an aluminum rolling mill in Kentucky, is a joint operation between Novelis and Tri-Arrows Aluminium Inc. ("Tri-Arrows"). Logan processes metal exclusively received from Novelis and Tri-Arrows and charges the respective partner a fee to cover expenses. This indicates that both Novelis and Tri-Arrows get substantially all of the economic benefits from the assets of the joint arrangement. Logan is thinly capitalized and relies on the regular reimbursement of costs and expenses by Novelis and Tri-Arrows to fund its operations, indicating that Novelis and Tri-Arrows have an obligation for the liabilities of the arrangement. Other than these contractually required reimbursements, Novelis does not provide other material support to Logan. Logan's creditors do not have recourse to our general credit. Novelis has a 40% voting interest; however, our participating interest in operations ranges from greater that 50% to approximately 55% depending on output. Novelis has joint ability to make decisions regarding Logan's production operations and take our share of production and associated costs.

iii. In May 2017, Novelis Korea Ltd., a subsidiary of Novelis Inc., entered into definitive agreements with Kobe Steel Ltd. ("Kobe"), an unrelated party, under which Novelis Korea and Kobe Steel Ltd. will jointly own and operate Ulsan Aluminum, Ltd. (UAL), the joint arrangement. UAL is controlled by an equally represented Board of Directors in which neither entity has sole decisionmaking ability regarding production operations or other significant decisions. Furthermore, neither entity has the ability to take the majority share of production or associated costs over the life of the joint venture. UAL currently produces flat rolled aluminum products exclusively for Novelis and Kobe. As of March 31, 2021 each of the parties to the joint arrangement hold a 50% interest in the equity, profits and losses, shareholder voting, management control and rights to use the production capacity of the facility.

iv. In July 2018, Novelis Switzerland SA (Novelis Switzerland), a subsidiary of Novelis, entered into definitive agreements with Constellium Valais SA (Constellium), an unrelated party, under which Novelis Switzerland and Constellium will jointly own and operate AluInfra Services SA (AluInfra), the joint arrangement. Each of the parties to the joint arrangement hold a 50% interest in the equity, profits and losses, shareholder voting, management control and rights to use the production capacity of the facility.

D. Investments in Associates:

Details of Associates of the Group are set out below. The country of incorporation is also their principal place of business and the proportion of ownership interest is the same as the proportion of voting rights held. The Group's interests in these entities are accounted for using equity method in the Consolidated Financial statements.

Name of Entity	Country of Incorporation	Proportion of Ownership Interests (%)		Carrying Amount (₹ Crore)	
		31/03/2021	31/03/2020	31/03/2021	31/03/2020
Aditya Birla Science & Technology Company Pvt. Limited (ABSTCPL)	India	49.00%	49.00%	23	19
Aditya Birla Renewable Subsidiary Limited (ABRSL)	India	26.00%	26.00%	8	7
Aditya Birla Renewable Utkal Limited (ABRUL)	India	26.00%	26.00%	1	1
Aditya Birla Renewable Solar Limited (ABRSolar) *	India	26.00%	-	-	-
Deutsche Aluminum Verpachung Recycling GMBH #	Germany	30.00%	30.00%	-	-
France Aluminum Recyclage SPA. #	France	20.00%	20.00%	-	-
				32	27

*Incorporated during the financial year 2021

Immaterial associates with no existing operations.

(a) Summarised financial information in respect of the Group's associates are set out below. These information is based on their Ind-AS financial statements after alignment of Group's accounting policies.

(₹ in Crore)

	As at March 31, 2021				As at March 31, 2020		
	ABSTCPL	ABRSL	ABRUL	ABRSolar	ABSTCPL	ABRSL	ABRUL
Summarised Balance Sheet							
Non-current Assets	100	119	21	4	101	119	20
Current Assets	52	8	1	-	51	8	4
Non-current Liabilities	(8)	(89)	(15)	-	(7)	(101)	(16)
Current Liabilities	(97)	(9)	(1)	(3)	(107)	(2)	(3)
Net Assets	47	29	6	1	38	24	5
Group's share of Net Assets of Associates	23	8	1	-	19	7	1
Dividend Received	-	-	-	-	-	-	-
Carrying Amount	23	8	1	-	19	7	1
Contingent Liabilities							
Share of Contingent Liabilities of the associate	6	-	-	-	6	-	-

(₹ in Crore)

	Year ended 31/03/2021				Year ended 31/03/2020		
	ABSTCL	ABRSL	ABRUL	ABRSolar	ABSTCL	ABRSL	ABRUL
Summarised Statement of Profit and Loss							
Total Revenues	59	16	3	-	66	14	1
Total Profit/ (Loss) for the year	9	5	1	-	7	(3)	-
Other comprehensive income for the year	-	-	-	-	-	-	-
Group's share of Profit/ (Loss) of Associates	4	1	-	-	4	-	-
Group's share of Other comprehensive income of Associates	-	-	-	-	-	-	-
Reconciliation to carrying amounts							
Opening net assets	38	24	5	-	31	23	-
Increase on account of acquisition during the year	-	-	-	1	-	4	5
Profit/(Loss) for the year	9	5	1	-	7	(3)	-
Other comprehensive income	-	-	-	-	-	-	-
Amounts directly recognised in equity	-	-	-	-	-	-	-
Closing net assets	47	29	6	1	38	24	5
Group's share (%)	49.00%	26.00%	26.00%	26.00%	49.00%	26.00%	26.00%
Group's share (Amount)	23	8	1	-	19	7	1
Dividend Received	-	-	-	-	-	-	-
Carrying amount	23	8	1	-	19	7	1

E. Interests in Joint Ventures:

Details of Joint Ventures of the Group are set out below. The joint ventures listed below have share capital consisting solely equity shares, which are directly held by the Group. The country of incorporation is also their principal place of business and the proportion of ownership interest is the same as the proportion of voting rights held. No entity listed below is listed on any public stock exchange.

	Country of Incorporation	Proportion of Ownership Interests		Carrying Amount (₹ Crore)	
		31/03/2021	31/03/2020	31/03/2021	31/03/2020
MNH Shakti Limited (MNH Shakti)	India	15.00%	15.00%	14	13
Hydromine Global Minerals (GMBH) Limited (Hydromine)	British Virgin Islands	45.00%	45.00%	-	1
				14	**14**

F. Interest in Trusts:

The Group has following Trust which are consolidated in these financial statements.

Name of the Trust	Principal Activity	Country of Incorporation	Place of Operation
Hindalco Jan Seva Trust	Welfare	India	India
Copper Jan Seva Trust	Welfare	India	India
Utkal Alumina Jan Seva Trust	Welfare	India	India

49. Business Combination

Refer Note 1B(B) for accounting policy on Business Combination

a) Summary of acquisition

On April 14, 2020, Novelis completed its acquisition of 100% of the issued and outstanding shares of Aleris Corporation, a global supplier of rolled aluminum products, pursuant to an Agreement and Plan of Merger, dated as of July 26, 2018 (the 'Merger Agreement'). As a result, the acquisition increases the Group's footprint as an aluminum rolled products manufacturer by expanding the portfolio of services provided to its customers. Refer Note 50 - Discontinued Operations for more details on the Duffel and Lewisport divestitures required as a condition of the acquisition. As a condition to the sale of the Duffel plant, Novelis was required by the European Union (EU) to make a ₹ 459 Crore payment (approximately € 55 million at the date of acquisition) to support capital improvements at the Duffel plant upon sale.

During the year ended March 31, 2021 the Group had recognised Acquisition related cost of ₹ 76 Crore (USD 10 million) included in Legal and Professional Fees (31/03/2020: ₹ 444 Crore (USD 63 million)).

Details of purchase consideration, the net assets acquired and goodwill are as follows:

(₹ in Crore)

Purchase consideration	Amount
Cash for equity consideration (i)	5,337
Earn-out consideration (ii)	380
Contingent consideration (iii)	71
Fair value of purchase consideration	**5,788**
Aleris debt and other financial liabilities	15,310
Total cash paid or payable	**21,098**

(i) Under the terms of the Merger Agreement, this represents the estimated cash consideration, which is the base consideration for the settlement of all shares of common stock outstanding, including shares issued in connection with the conversion of the 6% Senior Subordinated Exchangeable Notes due 2020 issued by Aleris International, Inc. (the "Exchangeable Notes") into Aleris common shares, and the settlement of stock options and restricted stock units and less the German tax receivable holdback discussed in footnote (iii) below. The transaction costs are removed from the base consideration as these costs were incurred by Aleris prior to the closing date and were not reimbursed by Novelis.

(ii) Under the terms of the Merger Agreement, represents the fair value of the earn-out consideration of ₹ 380 Crore (USD 50 million) which is based upon Aleris meeting specified commercial margin targets. On the closing date, Aleris had met all of the specified targets in the Merger Agreement and selling shareholders received the ₹ 380 Crore (USD 50 million) cash payment.

(iii) Under the terms of the Merger Agreement, this represents the amount of consideration that will be payable to the selling shareholders upon the condition that the existing Aleris German tax receivable is received from the German tax authorities. During the third quarter of the financial year 2021, Novelis settled this payable with the selling shareholders.

The acquisition was accounted for as a business combination using the acquisition method of accounting in accordance with Ind AS 103, Business Combinations ("Ind AS 103"). The purchase price was allocated to the assets acquired and liabilities assumed based on the estimated fair values at the date of acquisition. The excess of the purchase price over the fair value of the net assets acquired was allocated to goodwill, none of which is expected to be deductible for tax purposes. Goodwill is primarily attributed to synergies from future expected economic benefits, including enhanced revenue growth from expanded capabilities and geographic presence as well as cost savings from duplicative overhead, streamlined operations, and enhanced operational efficiency.

The assets and liabilities recognized as a result of the acquisition as at April 14, 2020 are as follows:

(₹ in Crore)

	Refer footnote	Provisional amounts As at June 30, 2020*	Measurement period adjustments	As at March 31, 2021
Assets acquired				
Property, plant and equipment	iii	7,140	(38)	7,102
Capital work-in-progress		229	-	229
Intangible assets	ii & iii	1,138	2,420	3,558
Trade receivables		1,619	-	1,619
Loans and advances		10	-	10
Other financial assets	i	516	131	647
Deferred tax assets (net)	iv	869	(154)	715
Current tax assets		144	-	144
Inventories		2,880	-	2,880
Cash and cash equivalents		805	-	805
Other Bank Balances		65	-	65
Other assets		219	-	219
Assets classified as held for sale	v	10,694	(2,957)	7,737
Total assets		26,328	(598)	25,730
Liabilities assumed				
Borrowings		916	-	916
Aleris' debt (including accrued interest)		14,851	-	14,851
Lease liabilities		127	-	127
Trade and other payables		1,723	-	1,723
Contract liabilities		8	-	8
Provisions		1,612	-	1,612
Deferred tax liabilities (net)		282	28	310
Current tax liabilities (net)	vi	101	276	377
Other financial liabilities	i	958	136	1,094
Other liabilities	vii	50	31	81
Liabilities directly associated with assets classified as held for sale		2,405	-	2,405
Total liabilities		23,033	471	23,504
Net identifiable assets acquired		3,295	(1,069)	2,226

* In connection with the acquisition of Aleris, the Group acquired two businesses which are required to be sold. Therefore, such businesses were classified as held for sale and were included within the 'Assets classified as held for sale' and 'Liabilities directly associated with assets classified as held for sale' line items in the above preliminary allocation of purchase price (see Note 50 - Discontinued Operations). As of March 31, 2021, both of these businesses have been sold and are no longer included in the Consolidated Balance Sheet.

i. Measurement period adjustment related to the presentational alignment of pending derivative settlements on a gross basis, in accordance with the Group's policy.

ii. Measurement period adjustment related to revisions in the valuation of intangible assets based on refinements to key assumptions, such as discount rates and growth rates.

iii. Measurement period adjustment related to presentational alignment of certain capitalized software in accordance with Group's policy.

iv. Measurement period adjustment related to the deferred tax impacts of the above measurement period adjustments and other tax adjustments.

v. Measurement period adjustments related to estimated costs to sell the Duffel and Lewisport businesses, in addition to revisions to key assumptions of the valuation of Lewisport's property, plant and equipment.

vi. Measurement period adjustment related to certain uncertain tax positions identified.

vii. Measurement period adjustment related customs related adjustments identified.

Following are the assets and liabilities of discontinued operations acquired:

(₹ in Crore)

	Provisional amounts As at June 30, 2020*	Measurement period adjustments	As at March 31, 2021
Assets acquired			
Property, plant and equipment	6,769	(2,733)	4,036
Capital work-in-progress	58	-	58
Intangible assets	238	(232)	6
Inventory	2,604	8	2,612
Trade receivables	562	-	562
Cash and bank balances	308	-	308
Deferred tax assets	67	-	67
Other assets	88	-	88
Total assets	10,694	(2,957)	7,737
Liabilities assumed			
Trade payables	882	-	882
Provisions	725	-	725
Contract liabilities	109	-	109
Lease liabilities	182	-	182
Other liabilities	507	-	507
Total liabilities	2,405	-	2,405

(₹ in Crore)

Calculation of goodwill	Provisional amounts As at June 30, 2020*	Measurement period adjustments	As at March 31, 2021
Consideration transferred	5,788	-	5,788
Less: Net identifiable assets acquired	(3,295)	1,069	(2,226)
Goodwill	2,493	1,069	3,562

The Group has allocated the goodwill associated with the Aleris acquisition to Novelis regions in the amounts below:

Regions	(₹ in Crore)
Novelis - North America	2,844
Novelis - Europe	407
Novelis - Asia	311
	3,562

The above fair values of assets acquired and liabilities assumed are final as of March 31, 2021. The fair values of the assets acquired and liabilities assumed were determined using the income and cost approaches. In many cases, the determination of the fair values required estimates about discount rates, future expected cash flows and other future events that are judgmental and subject to change. The fair value measurements are primarily based on significant inputs that are not observable in the market and thus represent a Level 3 measurement of the fair value hierarchy as defined in Ind AS 113, Fair Value Measurements ("Ind AS 113"). Intangible assets consisting of customer relationships, technology, and trade names are valued using the multi-period excess earnings method ("MPEEM"), or the relief from royalty ("RFR") method, both of which are forms of the income approach. A cost and market approach has been applied, as appropriate, for property and equipment, including land, and inventory.

- Customer relationship intangible assets are valued using the MPEEM method. The significant assumptions used include the estimated annual net cash flows (including appropriate revenue and profit attributable to the asset, retention rate, applicable tax rate, and contributory asset charges, among other factors), the discount rate, reflecting the risks inherent in the future cash flow stream, an assessment of the asset's life cycle, and the tax amortization benefit, among other factors.
- Technology and trade name intangible assets are valued using the RFR method. The significant assumptions used include the estimated annual net cash flows (including appropriate revenue attributable to the asset, applicable tax rate, royalty rate, and other factors such as technology related obsolescence rates), the discount rate, reflecting the risks inherent in the future cash flow stream, and the tax amortization benefit, among other factors.
- Inventory has been valued using the replacement cost or market approach, as appropriate. The replacement cost approach, which estimates value by determining the current cost of replacing an asset with another of equivalent economic utility, has been used to determine the estimated replacement cost of raw materials. The market approach has been used to determine the estimated selling price less costs to sale for work in progress and finished goods.
- Property, plant and equipment, including land, are valued using the cost or market approach, as appropriate. For assets valued using the cost approach, the cost to replace a given asset reflects the estimated reproduction or replacement cost for the property, less an allowance for loss in value due to depreciation. The market approach, which estimates value by leveraging comparable land sale data/listings and qualitatively comparing them to the in-scope properties, has been used to value the land.
- The assumed borrowings in China has been valued using an income approach. The significant assumptions used include the estimated annual cash flows and interest and credit spreads, among other factors.
- On the closing date, all of the outstanding historical debt of Aleris, except for certain non-recourse multi-currency secured term loan facilities (collectively, the "Zhenjiang Term Loans"), was repaid in connection with the Merger. On the acquisition date the liability assumed were fair valued using income approach and market approach (for Level-1 securities).
- The assumed pension and postretirement liabilities have been valued in accordance to Ind AS 19 "Employee benefits" ("Ind AS 19").
- The values of the assets held for sale for purchase price allocation is based on fair value less costs to sell as required by Ind AS 103 and Ind AS 105.
- In connection with obtaining the regulatory antitrust approvals, the European Commission required Novelis to pay the buyer of Duffel an additional € 55 million (approximately ₹ 459 crores (USD 60 million)) to fund capital expenditures that would be required so that Duffel can operate as a standalone business. This amount had been accrued as a liability based on the amount that was paid to Duffel's buyer upon close of the sale.

The fair value of the assets acquired includes current trade receivables of ₹ 1,619 Crore (USD 213 million) related to continuing operations, and ₹ 562 Crores (USD 74 million) related to discontinued operations. The gross amount due under the contracts is ₹ 2,182 Crore (USD 287 million), of which less than ₹ 1 Crore (USD 0.1 million) is expected to be uncollectible.

The fair value of the assets acquired includes ₹ 227 Crore (USD 30 million) of right-of-use assets. Lease contracts were recognised under Ind AS 116 as if the lease contract was a new lease at the acquisition date. Lease liabilities assumed includes ₹ 127 Crore (USD 17 million) of lease liabilities, of which, ₹ 48 Crore (USD 6 million) are current liabilities.

The amounts allocated to intangible assets are as follows:

(₹ in Crore)

	Gross carrying amount*	Weighted average useful life
Trade name	73	2.5 years
Technology	393	15.1 years
Carbon credits	18	Indefinite
Customer relationships	3,067	22.5 years
Other intangibles	7	2-5 years
Total	**3,558**	**21.2 years**

* In connection with the acquisition of Aleris, Novelis acquired two businesses which we were obligated to sell. As such, gross carrying amounts exclude amounts classified as held for sale (refer Note 50 - Discontinued Operations).

Revenue and profit contribution

Since the acquisition date, the results of operations for Aleris included in the Consolidated Financial Statements for the year ended March 31, 2021 comprises of Revenue of ₹ 11,605 Crore (USD 1,563 million) and Net Loss of ₹ 2,607 Crore (USD 351 million).

The following supplemental pro forma financial information presents the Group's results of operations as of March 31, 2021 as if the acquisition of Aleris had occurred on April 1, 2020.

(₹ in Crore)

	Year ended 31/03/2021
Consolidated Revenue from Operations	132,389
Consolidated Profit/ (Loss) for the year	3,021

The pro forma financial information reflects pro forma adjustments to present the combined pro forma results of operations as if the acquisition had occurred on April 1, 2020 to give effect to certain events the Group believes to be directly attributable to the acquisition. These pro forma adjustments primarily include:

- the elimination of Aleris historical depreciation and amortization expense, and the recognition of new depreciation and amortization expense;
- an adjustment to interest expense to reflect (i) the additional borrowings of the Company in conjunction with the acquisition (ii) the repayment of Aleris' historical debt in conjunction with the acquisition;
- acquisition-related transaction costs and other one-time costs directly attributable to the acquisition reflected as if they occurred at the beginning of the annual reporting period; and
- the related income tax effects of the adjustments noted above.

Purchase consideration - cash flow

(₹ in Crore)

	Year ended 31/03/2021
Outflow of cash required to acquire subsidiaries	20,636
Less: Balances acquired	
Cash, including discontinued operations	(1,112)
Net outflow of cash - investing activitie	**19,524**

50. Discontinued Operations

Refer Note 1B(H) for accounting policy on Non-Current assets (or Disposal Groups) Held for Sale

On April 14, 2020, the Group closed the acquisition of Aleris. As a result of the European Union (EU) and United States (US) antitrust review processes required for approval of the acquisition, the Group is obligated to divest Aleris' European and North American automotive assets, including its plants in Duffel, Belgium (Duffel) and Lewisport, Kentucky (Lewisport).

(i) Duffel

On September 30, 2020, the Group has completed the sale of its assets at Duffel, Belgium to ALVANCE, the international aluminum business of the GFG Alliance at a consideration of ₹ 2,675 Crore (€ 310 million as of September 30, 2020). Divestiture of Duffel was a precondition to the acquisition of Aleris as determined by the European Commission and Chinese State Administration for Market Regulation (SAMR). At the transaction date the Group has received ₹ 1,812 Crore (€ 210 million) in cash. Both the parties have agreed to a post-closing arbitration process on the remaining ₹ 863 Crore (€ 100 million as of September 30, 2020). The arbitration does not relate to future events and relates solely to the period prior to consummation of the sale and the amount ₹ 863 Crore (€ 100 million as of September 30, 2020) has been recorded as contingent consideration. In addition to the cash and contingent consideration, the Group has recorded a ₹ 130 Crore (€ 15 million as of September 30, 2020) receivable for net debt and working capital adjustments.

The Group has presented the contingent consideration in "Other Financial Assets - Non-Current" and it is measured at fair value through profit and loss at each reporting date till the amount is realised by the Group. Changes to the estimated fair value resulting from subsequent measurement will be recorded to "Net profit/ (loss) from discontinued operations, net of tax". As on March 31, 2021 there is no material change in the fair value of the contingent consideration.

The fair value has been adjusted for imputed interest which is included in other income from continuing operations in the consolidated statement of profit and loss.

As of March 31, 2021, certain assets and liabilities of Duffel will remain within current assets of discontinued operations and current liabilities of discontinued operations in the consolidated balance sheets until ALVANCE is able to satisfy necessary regulatory requirements.

The sale was completed in September 2020 and resulted into a gain of ₹ 98 Crore ($ 13 million), net of tax. Results of operations of Duffel has been presented as discontinued operations in the Consolidated Statement of Profit and Loss for the year ended March 31, 2021.

Details of sale of Duffel business as on transaction date

(₹ in Crore)

	As at September 30, 2020
Sale Consideration (including Working Capital and Net Debt adjustment)	1,942
Contingent Consideration	802
Total Sale Consideration	2,744
Less: Net Assets sold	(2,760)
Add: Reclassification of exchange difference on foreign currency translation	225
Less: Cost to Sell	(111)
Net Gain before income tax	**98**
Less: Income tax expense	-
Gain on sale after income tax	**98**

The carrying amounts of assets and liabilities of Duffel business as at transaction date were as follows:

(₹ in Crore)

	As at September 30, 2020
Property, plant and equipment	1,613
Capital work-in-progress	53
Inventory	766
Trade receivables	389
Cash and cash equivalents	173
Deferred tax assets (net)	92
Other Assets	270
Total Assets	**3,356**
Lease liabilities	30
Provisions	139
Trade and other payables	263
Contract liabilities	8
Other liabilities	156
Total Liabilities	**596**
Net Assets	**2,760**

(ii) Lewisport

On November 8, 2020, the Group entered into a definitive agreement with American Industrial Partners (AIP) for the sale of Lewisport and the sale was completed on November 30, 2020 ("transaction date for Lewisport business"). Upon closing, the Group has received ₹ 1,335 Crore ($ 180 million) in cash proceeds. In addition, the Group has recorded a ₹ 123 Crore ($ 17 million) receivable for net working capital adjustments.

The sale has resulted into a loss of ₹ 17 Crore ($ 2 million), net of tax. The results of operations of Lewisport have been presented as discontinued operations in the Consolidated Statement of Profit and Loss for the year ended March 31, 2021.

Details of sale of Lewisport business as on transaction date

(₹ in Crore)

	As at November 30, 2020
Total Sale Consideration	1,458
Less: Net Assets sold	(1,417)
Less: Cost to Sell	(71)
Net loss before income tax	**(30)**
Less: Income tax benefit	(13)
Loss on sale after income tax	**(17)**

The carrying amounts of assets and liabilities of Lewisport business as at transaction date were as follows:

(₹ in Crore)

	As at November 30, 2020
Property, plant and equipment	873
Capital work-in-progress	113
Other intangible assets	13
Inventory	1,431
Trade receivables	594

(₹ in Crore)

	As at November 30, 2020
Cash and cash equivalents	-
Other Assets	5
Total Assets	**3,029**
Lease liabilities	137
Provisions	425
Trade and other payables	636
Contract liabilities	394
Other liabilities	20
Total Liabilities	**1,612**
Net Assets	**1,417**

(iii) The Financial Performance of the Discontinued Operations for the the year ended March 31, 2021 is as follows:

(₹ in Crore)

Particulars		Amount
Total Income		7,948
Total Expenses		8,421
Impairment loss recognised as a result of remeasurement of fair value less cost to sell		1,661
Loss before income tax		**(2,134)**
Income tax benefit		354
Loss after income tax from discontinued operations	(a)	**(1,780)**
Gain on sale of Discontinued Operations (net)		68
Income tax benefit on sale of Discontinued Operations		13
Gain after income tax on sale of discontinued operations	(b)	**81**
Loss from Discontinued Operations	(a + b)	**(1,699)**
Remeasurement of Defined Benefit Obligation of Discontinued Operations (Net of tax ₹ 9 crore)		51
Other Comprehensive Income/(Loss) for the year from discontinued operations		**51**
Total Comprehensive Income/(Loss) for the year from discontinued operations		**(1,648)**

(iv) The following assets and liabilities were classified as held for sale in relation to the discontinued operation:

(₹ in Crore)

	As at 31/03/2021
Assets of disposal group classified as held for sale	
Inventory	73
Trade receivables	34
	107
Liabilities of disposal group classified as held for sale	
Trade payables	114
Contract liabilities	5
	119

51. COVID-19 Impact on the Financial Statement:

The outbreak of coronavirus (COVID19) pandemic impacted businesses around the globe during the current financial year. The Group's operations, revenues, and profitability during the current year has improved and has reached almost the pre-COVID19 level. The Group has made a detailed assessment of its liquidity position for a period of at least one year from the balance sheet date, of the recoverability and carrying values of its assets comprising property, plant and equipment, Intangible assets, Trade Receivables, Inventory, investments, other current and non-current assets and ability to pay its liabilities as they become due and effectiveness of internal financial controls at the balance sheet date, and has concluded that there are no material impact or adjustments required in the consolidated financial statements.

Management is of the view that considering the nature of its business operations, existing customer and supplier relationships and its market position, impact on its business operations, if any, arising from COVID -19 pandemic is not expected to be significant. The impact of COVID 19 pandemic may be different from that estimated as at the date of approval of these Consolidated Financial Statements. The Group will continue to monitor any material changes to future economic conditions

52. Subsequent Events

In prior years, Novelis filed four lawsuits spanning several years challenging the inclusion of State VAT (ICMS) in the tax base for calculating Social Contribution Tax (PIS and COFINS).

The lawsuits asserted that the calculation methodology was unconstitutional as it resulted in the assessment of a tax upon a tax. The Novelis lawsuits were consistent with lawsuits filed by a significant number of other taxpayers. In 2017, the Brazilian Supreme Court ruled the leading case in favor of the taxpayers, deciding that the inclusion of ICMS in the tax base for PIS and COFINS was unconstitutional. Previously, the Group estimated the refund on a net basis (output tax paid less input credit) and recognized the benefit.

On May 13, 2021, in its ruling the Brazilian Supreme Court decided that the credit should be calculated based on gross methodology (on output tax basis) and with an effective date from March 2017, except for the companies that filed their lawsuits before this date, which will have the right from their respective initial proceedings. This decision is yet to be published. Assuming that the final, published ruling is consistent with the Group's current interpretation of the decision, Novelis will be required to book an incremental benefit to true-up the credit from the amount recorded following the net methodology and will record this additional benefit in the period in which the ruling is published. The Group has not yet quantified the incremental benefit, but the benefit is expected to be material.

53. During the financial year ended March 31, 2021, the Group has reclassified following comparatives which do not have material impact on the Consolidated Financial Statements.

(₹ in Crore)

Note No.	Note Description	Previously Reported Amount	Revised Amount	Change
	Consolidated Statement of Profit and Loss			
	Expenses			
35	Impairment Loss/ (Reversal) on Financial Assets (Net)	56	22	(34)
36	Other Expenses	16,940	16,974	34
				-
	Consolidated statement of Cash Flows			
	Net Cash Generated/ (Used) - Operating Activities	12,665	12,745	80
	Net Cash Generated/ (Used) - Investing Activities	(8,301)	(8,427)	(126)
	Net Cash Generated/ (Used) - Financing Activities	6,610	6,656	46
				-

54. Additional information required under Schedule III of the Companies Act, 2013

A. Information regarding subsidiaries, associates and joint ventures included in the consolidated financial statements for the year ended March 31, 2021:

(₹ in Crore)

	Net Assets i.e. total Assets minus total Liabilities		Share in Profit/ (Loss)		Share in Other Comprehensive Income		Share in total Comprehensive Income	
	As % of Consolidated Net Assets	Amount	As % of Consolidated Profit/ (Loss)	Amount	As % of Other Comprehensive Income	Amount	As % of Total Comprehensive Income	Amount
Parent:								
Hindalco Industries Limited	75.24%	50,064	28.51%	993	79.01%	3,780	57.74%	4,773
Subsidiaries:								
Indian:								
Minerals & Minerals Limited	0.02%	11	0.00%	-	0.00%	-	0.00%	-
Utkal Alumina International Limited	12.01%	7,991	17.40%	606	(0.02)%	(1)	7.32%	605
Utkal Alumina Social Welfare Foundation	0.00%	-	0.00%	-	0.00%	-	0.00%	-
Suvas Holdings Limited	0.04%	29	0.00%	-	0.00%	-	0.00%	-
Renuka Investments & Finance Limited	0.23%	156	0.11%	4	1.30%	62	0.80%	66
Renukeshwar Investments & Finance Limited	0.12%	80	0.09%	3	0.61%	29	0.39%	32
Dahej Harbour and Infrastructure Limited	0.12%	82	(0.20)%	(7)	0.00%	-	(0.08)%	(7)
Lucknow Finance Company Limited	0.03%	18	0.06%	2	0.00%	-	0.02%	2
Hindalco-Almex Aerospace Limited	0.15%	97	0.14%	5	0.00%	-	0.06%	5
East Coast Bauxite Mining Company Private Ltd	0.00%	-	0.00%	-	0.00%	-	0.00%	-
Kosala Livelihood and Social Foundation	0.00%	-	0.00%	-	0.00%	-	0.00%	-
Foreign:								
AV Minerals (Netherlands) N.V.	18.75%	12,474	(0.03)%	(1)	0.17%	8	0.08%	7
AV Metals Inc.	17.19%	11,438	0.00%	-	0.02%	1	0.01%	1
Novelis Inc. (Consolidated)	37.51%	24,958	55.58%	1,936	28.39%	1,358	39.85%	3,294
Hindalco Do Brasil Industria Comercia de Alumina Ltda	0.10%	66	(0.29)%	(10)	0.46%	22	0.15%	12
Non-controlling Interest	0.02%	10	0.00%	-	0.00%	-	0.00%	-
Associates								
Indian:								
Aditya Birla Renewable Subsidiary Limited	0.01%	8	0.03%	1	0.00%	-	0.01%	1
Aditya Birla Renewable Utkal Limited	0.00%	1	0.00%	-	0.00%	-	0.00%	-
Aditya Birla Renewable Solar Limited	0.00%	-	0.00%	-	0.00%	-	0.00%	-
Aditya Birla Science and Technology Co. Pvt. Ltd.	0.03%	23	0.11%	4	0.00%	-	0.05%	4
Joint Ventures								
Indian:								
MNH Shakti Limited (MNH Shakti)	0.02%	14	0.03%	1	0.00%	-	0.01%	1
Foreign:								
Hydromine Global Minerals (GMBH) Limited	0.00%	-	(0.03)%	(1)	0.00%	-	(0.01)%	(1)
Trusts								
Indian:								
Hindalco Jana Seva Trust	0.00%	2	0.00%	-	0.00%	-	0.00%	-
Copper Jann Seva Trust	0.00%	(3)	(0.14)%	(5)	0.00%	-	(0.06)%	(5)
Utkal Alumina Jana Seva Trust	0.00%	(1)	(0.03)%	(1)	0.00%	-	(0.01)%	(1)
	161.58%	**107,518**	**101.35%**	**3,530**	**109.93%**	**5,259**	**106.31%**	**8,789**
Consolidation Adjustments	(61.58)%	(40,975)	(1.35)%	(47)	(9.93)%	(475)	(6.31)%	(522)
	100.00%	**66,543**	**100.00%**	**3,483**	**100.00%**	**4,784**	**100.00%**	**8,267**

B. Information regarding subsidiaries, associates and joint ventures included in the consolidated financial statements for the year ended March 31, 2020:

(₹ in Crore)

	Net Assets i.e. total Assets minus total Liabilities		Share in Profit/ (Loss)		Share in Other Comprehensive Income		Share in total Comprehensive Income	
	As % of Consolidated Net Assets	Amount	As % of Consolidated Profit/ (Loss)	Amount	As % of Other Comprehensive Income	Amount	As % of Total Comprehensive Income	Amount
Parent:								
Hindalco Industries Limited	78.00%	45,494	16.46%	620	124.86%	(3,400)	(266.28)%	(2,780)
Subsidiaries:								
Indian:								
Minerals & Minerals Limited	0.02%	11	0.05%	2	0.00%	-	0.19%	2
Utkal Alumina International Limited	12.66%	7,387	8.42%	317	0.07%	(2)	30.17%	315
Utkal Alumina Technical & General Services Limited	0	-	0.00%	-	0.00%	-	0.00%	-
Suvas Holdings Limited	0.05%	29	0.03%	1	0.00%	-	0.10%	1
Renuka Investments & Finance Limited	0.15%	89	0.03%	1	1.80%	(49)	(4.60)%	(48)
Renukeshwar Investments & Finance Limited	0.08%	48	(0.03)%	(1)	1.10%	(30)	(2.97)%	(31)
Dahej Harbour and Infrastructure Limited	0.15%	89	0.56%	21	0.00%	-	2.01%	21
Lucknow Finance Company Limited	0.03%	16	0.05%	2	0.00%	-	0.19%	2
Hindalco-Almex Aerospace Limited	0.16%	93	0.24%	9	0.00%	-	0.86%	9
East Coast Bauxite Mining Company Private Ltd	0.00%	-	0.00%	-	0.00%	-	0.00%	-
Foreign:								
AV Minerals (Netherlands) N.V.	22.03%	12,848	(0.03)%	(1)	0.81%	(22)	(2.20)%	(23)
AV Metals Inc.	20.20%	11,781	0.00%	-	0.07%	(2)	(0.19)%	(2)
Novelis Inc. (Consolidated)	37.47%	21,857	76.13%	2,868	6.65%	(181)	257.38%	2,687
Hindalco Do Brasil Industria Comercia de Alumina Ltda	0.14%	84	(1.51)%	(57)	3.75%	(102)	(15.23)%	(159)
Non-controlling Interest	0.02%	10	0.00%	-	0.00%	-	0.00%	-
Associates								
Indian:								
Aditya Birla Renewable Subsidiary Limited	0.01%	7	(0.03)%	(1)	0.00%	-	(0.10)%	(1)
Aditya Birla Renewable Utkal Limited	0.00%	1	0.00%	-	0.00%	-	0.00%	-
Aditya Birla Science and Technology Co. Pvt. Ltd.	0.03%	19	0.08%	3	0.00%	-	0.29%	3
Joint Ventures								
Indian:								
MNH Shakti Limited (MNH Shakti)	0.02%	13	0.03%	1	0.00%	-	0.10%	1
Foreign:								
Hydromine Global Minerals (GMBH) Limited	0.00%	1	0.00%	-	0.00%	-	0.00%	-
Trusts								
Indian:								
Hindalco Jana Seva Trust	0.00%	2	0.00%	-	0.00%	-	0.00%	-
Copper Jann Seva Trust	0.01%	3	(0.03)%	(1)	0.00%	-	(0.10)%	(1)
Utkal Alumina Jana Seva Trust	0.00%	2	0.00%	-	0.00%	-	0.00%	-
	171.25%	**99,884**	**100.45%**	**3,784**	**139.11%**	**(3,788)**	**(0.38)%**	**(4)**
Consolidation Adjustments	(71.25)%	(41,557)	(0.45)%	(17)	(39.11)%	1,065	100.38%	1,048
	100.00%	**58,327**	**100.00%**	**3,767**	**100.00%**	**(2,723)**	**100.00%**	**1,044**

As per our report annexed.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sumit Seth
Partner
Membership No. 105869

Place : Mumbai
Date : May 21, 2021

For and on behalf of the Board of Hindalco Industries Limited

Praveen Kumar Maheshwari
Whole-time Director &
Chief Financial Officer
DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Anil Malik
Company Secretary

K N Bhandari
Director
DIN- 00026078

FINANCIAL INFORMATION RELATING TO SUBSIDIARY COMPANIES FOR THE YEAR ENDED 31ST MARCH 2021 Sec.129(3)

Figures INR in Crore & FC in Million

Sr.	Name of the Subsidiary Company	Country	Reporting currency	Capital	Reserves	Total Assets	Total Liabilities	Investments Shares, Debnture, Bonds & Others	Turnover/ Revenues	Profit/(Loss) before Tax	Provision for Tax	Gain/ Loss from Discontinued Operations	Profit/(Loss) after Tax .	Proposed Dividend	% of Share Holding
1	Minerals and Minerals Limited {}	India	INR	0.05	10.77	31.13	20.31	0.00	40.52	1.38	1.19	-	0.20	-	100
2	Renuka Investments and Finance Limited {}	India	INR	9.25	146.27	156.17	0.65	146.24	5.89	5.62	1.16	-	4.46	-	100
3	Renukeshwar Investsment and Finance Limted {}	India	INR	4.80	74.75	79.55	0.00	74.39	3.46	3.45	0.73	-	2.72	-	100
4	Suvas Holding Limited {}	India	INR	29.93	(0.46)	38.15	8.68	1.24	4.10	0.82	0.26	-	0.56	-	74
5	Utkal Alumina International Limited {}	India	INR	6,251.48	1,740.05	11,432.67	3,441.14	1,967.16	2,935.35	945.19	339.72	-	605.47	-	100
6	Hindalco-Almex Aerospace Limited {}	India	INR	88.56	9.72	106.48	8.20	20.37	89.60	5.55	0.09	-	5.46	-	97.18
7	Lucknow Finance Company Limited {}	India	INR	9.90	7.61	18.73	1.22	9.82	2.72	2.31	0.62	-	1.69	-	100
8	Dahej Harbour and Infrastructure Limited {}	India	INR	50.00	31.76	133.11	51.35	73.28	41.53	(8.36)	(0.96)	-	(7.39)	-	100
9	East Coast Bauxite Mining Co.Pvt.Ltd. {}	India	INR	0.01	(0.04)	0.01	0.04	0.00	0.16	(0.01)	-	-	(0.01)	-	74
10	Utkal Alumina Social Welfare Foundation@	India	INR	0.10	(0.01)	0.09	(0.01)	0.00	-	(0.01)	-	-	(0.01)	-	100
11	Kosala Livelihood and Social Foundation	India	INR	0.10	(0.00)	0.10	0.00	0.00			-	-	-	-	
12	A V Minerals (Netherlands) N.V. *	Netherlands	INR	12,733.97	(1,086.38)	11,647.45	(0.14)	0.00	-	(0.61)	-	-	(0.61)	-	100
			USD	1,740.84	(148.52)	1,592.30	(0.02)	0.00	-	(0.08)	-		(0.08)	-	
13	A V Metals Inc. #*	Canada	INR		11,437.94	11,437.96	0.01	0.00	-	-	-		-	-	100
			USD	-	1,563.66	1,563.66	0.00	0.00	-	-	-		-	-	
14	Novelis Inc. ##*	Canada	INR	11,557.45	(3,597.49)	19,484.07	11,524.11	0.00	3,652.05	1,400.93	35.33	(159.24)	1,206.36	-	100
			USD	1,580.00	(491.81)	2,663.63	1,575.44	0.00	491.95	188.71	4.76	(21.45)	162.50	-	
15	4260848 Canada Inc.*	Canada	INR	897.12	(607.02)	294.39	4.29	0.00	-	86.95	2.54	-	84.41	-	100
			USD	122.64	(82.98)	40.25	0.59	0.00	-	11.71	0.34	-	11.37	-	
16	4260856 Canada Inc.*	Canada	INR	1,345.71	(921.42)	430.70	6.40	0.00	-	129.72	3.79	-	125.94	-	100
			USD	183.97	(125.97)	58.88	0.88	0.00	-	17.47	0.51	-	16.96	-	
17	Novelis South America Holdings LLC*	USA	INR	0.01	(0.01)	-	-	0.00	-	-	-	-	-	-	100
			USD	0.00	(0.00)	-	-	0.00	-	-	-	-	-	-	
18	Novelis Corporation*	USA	INR	0.29	(5,068.01)	32,702.00	37,769.72	0.00	29,892.34	488.76	143.18	(0.15)	345.43	-	100
			USD	0.04	(692.84)	4,470.63	5,163.43	0.00	4,026.64	65.84	19.29	(0.02)	46.53	-	

Sr.	Name of the Subsidiary Company	Country	Reporting currency	Capital	Reserves	Total Assets	Total Liabilities	Investments: Shares, Debnture, Bonds & Others	Turnover/ Revenues	Profit/(Loss) before Tax	Provision for Tax	Gain/ Loss from Discontinued Operations	Profit/(Loss) after Tax .	Proposed Dividend	% of Share Holding
19	Novelis de Mexico SA de CV*	Mexico	INR	0.05	(0.05)	-	-	0.00	-	-	-	-	-	-	100
			USD	0.01	(0.01)	-	-	0.00	-	-	-	-	-	-	
20	Novelis do Brasil Ltda.*	Brazil	INR	1,244.98	4,748.95	12,506.29	6,512.36	0.00	13,234.93	2,442.81	702.79	-	1,740.02	-	100
			BRL	958.53	3,656.28	9,628.76	5,013.96	0.00	9,627.61	1,776.99	511.24	-	1,265.76	-	
21	Novelis Korea Limited*	South Korea	INR	2,750.73	1,377.66	10,413.47	6,285.09	0.00	14,327.88	1,078.89	281.41	-	797.48	-	100
			KRW	416,777.00	208,736.00	1,577,799.00	952,286.00	0.00	2,170,891.00	163,468.00	42,638.00	-	120,830.00	-	
22	Novelis UK Ltd*	United Kingdom	INR	1,473.32	952.13	3,459.83	1,034.38	0.00	2,762.91	67.18	15.59	-	51.59	-	100
			GBP	146.10	94.41	343.08	102.57	0.00	284.75	6.92	1.61	-	5.32	-	
23	Novelis Services Limited*	United Kingdom	INR	1,470.36	2,379.67	3,853.36	3.34	0.00	202.60	233.20	14.48	-	218.72	-	100
			USD	201.01	325.32	526.79	0.46	0.00	27.29	31.41	1.95	-	29.46	-	
24	Novelis Deutschland GmbH*	Germany	INR	2,923.52	38.35	9,806.72	6,844.84	0.00	20,550.34	295.61	-	-	295.61	-	100
			EUR	340.80	4.47	1,143.17	797.91	0.00	2,373.60	34.14	-	-	34.14	-	
25	Novelis Aluminum Beteiligungs GmbH*	Germany	INR	0.21	0.19	0.40	-	0.00	-	(0.00)	-	-	(0.00)	-	100
			EUR	0.03	0.02	0.05	-	0.00	-	(0.00)	-	-	(0.00)	-	
26	Novelis Switzerland SA*	Switzerland	INR	38.68	3,409.22	4,730.49	1,282.59	0.00	4,744.61	73.42	12.48	-	60.94	-	100
			CHF	5.00	440.64	611.42	165.78	0.00	589.81	9.13	1.55	-	7.57	-	
27	Novelis Lamines France SAS*	France	INR	26.59	27.24	55.42	1.58	0.00	7.46	0.14	-	-	0.14	-	100
			EUR	3.10	3.18	6.46	0.18	0.00	0.86	0.02	-	-	0.02	-	
28	Novelis Italia SPA*	Italy	INR	462.00	116.54	1,158.01	579.47	0.00	1,708.57	62.36	0.88	-	61.48	-	100
			EUR	53.86	13.58	134.99	67.55	0.00	197.34	7.20	0.10	-	7.10	-	
29	Novelis Aluminum Holding Unlimited Company*	Ireland	INR	25.74	2,525.02	8,748.09	6,197.34	0.00	-	73.69	(109.55)	-	183.24	-	100
			EUR	3.00	294.34	1,019.77	722.43	0.00	-	8.51	(12.65)	-	21.16	-	
30	Novelis PAE SAS*	France	INR	34.66	96.80	226.29	94.83	0.00	131.31	(0.34)	(0.71)	-	0.38	-	100
			EUR	4.04	11.28	26.38	11.05	0.00	15.17	(0.04)	(0.08)	-	0.04	-	
31	Novelis Europe Holdings Limited*	United Kingdom	INR	359.14	1,691.54	5,527.99	3,477.31	0.00	-	(142.72)	-	-	(142.72)	-	100
			USD	49.10	231.25	755.72	475.38	0.00	-	(19.23)	-	-	(19.23)	-	
32	Novelis AG*	Switzerland	INR	7.74	1,562.54	7,474.51	5,904.24	0.00	6,312.84	59.54	0.31	-	59.22	-	100
			CHF	1.00	201.96	966.09	763.13	0.00	784.76	7.40	0.04	-	7.36	-	

Sr.	Name of the Subsidiary Company	Country	Reporting currency	Capital	Reserves	Total Assets	Total Liabilities	Investments: Shares, Debnture, Bonds & Others	Turnover/ Revenues	Profit/(Loss) before Tax	Provision for Tax	Gain/ Loss from Discontinued Operations	Profit/(Loss) after Tax .	Proposed Dividend	% of Share Holding
33	Novelis Holdings Inc.*	USA	INR	0.00	1,039.41	11,332.24	10,292.83	0.00	-	(357.42)	(69.60)	-	(287.82)	-	100
			USD	0.00	142.10	1,549.21	1,407.11	0.00	-	(48.15)	(9.38)	-	(38.77)	-	
34	8018227 Canada Inc.*	Canada	INR	-	(706.27)	1,855.54	2,561.81	0.00	-	(39.31)	2.97	-	(42.28)	-	100
			USD	-	(96.55)	253.67	350.22	0.00	-	(5.30)	0.40	-	(5.70)	-	
35	Novelis Sheet Ingot GmbH*	Germany	INR	171.57	-	4,935.02	4,763.45	4,289.25	793.26	(6.89)	-	-	(6.89)	-	100
			EUR	20.00	-	575.28	555.28	500.00	91.62	(0.80)	-	-	(0.80)	-	
36	Novelis MEA Ltd*	UAE, Dubai	INR	6.67	262.07	1,610.91	1,342.17	0.00	3,677.42	215.78	-	-	215.78	-	100
			USD	0.91	35.83	220.22	183.49	0.00	495.37	29.07	-	-	29.07	-	
37	Novelis (Shanghai) Aluminum Trading Company*	China	INR	24.72	105.57	144.90	14.61	0.00	34.23	4.25	1.75	-	2.50	-	100
			CNY	22.14	94.57	129.80	13.09	0.00	31.23	3.88	1.60	-	2.28	-	
38	Novelis (China) Aluminum Products Co., Ltd.*	China	INR	945.87	544.39	3,733.80	2,243.54	0.00	2,235.71	418.26	107.07	-	311.20	-	100
			CNY	847.31	487.67	3,344.74	2,009.77	0.00	2,039.82	381.61	97.68	-	283.93	-	
39	Novelis Vietnam Company Limited*	Vietnam	INR	6.66	20.60	38.42	11.16	0.00	0.10	(5.19)	0.09	-	(5.28)	-	100
			VND	20,820.00	64,379.18	120,071.80	34,872.62	0.00	306.68	(16,213.47)	281.24	-	(16,494.71)	-	
40	Novelis Services (North America) Inc.*	USA	INR	-	-	0.04	0.04	0.00	-	-	-	-	-	-	100
			USD	-	-	0.01	0.01	0.00	-	-	-	-	-	-	
41	Novelis Services (Europe) Inc.*	USA	INR	-	-	2.34	2.34	0.00	-	-	-	-	-	-	100
			USD	-	-	0.32	0.32	0.00	-	-	-	-	-	-	
42	Brecha Energetica Ltda*	Brazil	INR	0.00	-	0.00	-	0.00	-	-	-	-	-	-	100
			BRL	0.00	-	0.00	-	0.00	-	-	-	-	-	-	
43	Novelis Global Employement, Organization, Inc.*	USA	INR	2.38	(0.63)	35.60	33.85	0.00	-	(0.68)	(0.14)	-	(0.53)	-	100
			USD	0.33	(0.09)	4.87	4.63	0.00	-	(0.09)	(0.02)	-	(0.07)	-	
44	Novelis (India) Infotech Ltd.	India	INR	-	-	-	-	0.00	-	-	-	-	-	-	100
			INR					0.00						-	
45	Aleris Deutschland Holding GmbH*	Germany	INR	4,892.73	(1,355.95)	4,124.30	587.52	0.00	0.22	2.13	2.13	-	-	-	100
			EUR	570.35	(158.06)	480.77	68.49	0.00	0.03	0.25	0.25	-	-	-	
46	Aleris Rolled Products Germany GmbH*	Germany	INR	836.81	375.50	3,155.73	1,943.42	0.00	4,497.11	(31.44)	8.59	-	(40.03)	-	100
			EUR	97.55	43.77	367.86	226.55	0.00	519.42	(3.63)	0.99	-	(4.62)	-	
47	Aleris Casthouse Germany GmbH*	Germany	INR	378.41	0.01	651.34	272.92	0.00	1,546.84	(36.39)	(1.53)	-	(34.86)	-	100
			EUR	44.11	0.00	75.93	31.81	0.00	178.66	(4.20)	(0.18)	-	(4.03)	-	

Sr.	Name of the Subsidiary Company	Country	Reporting currency	Capital	Reserves	Total Assets	Total Liabilities	Investments Shares, Debnture, Bonds & Others	Turnover/ Revenues	Profit/(Loss) before Tax	Provision for Tax	Gain/ Loss from Discontinued Operations	Profit/(Loss) after Tax .	Proposed Dividend	% of Share Holding
48	Aleris Corporation*	USA	INR	9,580.79	(143.88)	15,069.87	5,632.96	0.00	-	(146.02)	-	-	(146.02)	-	100
			USD	1,309.77	(19.67)	2,060.18	770.07	0.00	-	(19.67)	-	-	(19.67)	-	
49	Aleris International, Inc.*	USA	INR	15,019.11	6.07	20,193.10	5,167.92	0.00	-	39.46	-	-	39.46	-	100
			USD	2,053.24	0.83	2,760.56	706.50	0.00	-	5.32	-	-	5.32	-	
50	Aleris Rolled Products, Inc.*	USA	INR	11,657.00	(1,596.17)	12,306.32	2,245.49	0.00	3,321.28	(547.05)	-	(1,114.93)	(1,661.97)	-	100
			USD	1,593.61	(218.21)	1,682.38	306.98	0.00	447.39	(73.69)	-	(150.19)	(223.88)	-	
51	UWA Acquisition Co.*	USA	INR	8.07	(1.32)	15.27	8.52	0.00	-	(1.34)	-	-	(1.34)	-	100
			USD	1.10	(0.18)	2.09	1.17	0.00	-	(0.18)	-	-	(0.18)	-	
52	Aleris RM, Inc.*	USA	INR	7.48	(1.71)	159.09	153.33	0.00	-	0.08	1.82	-	(1.74)	-	100
			USD	1.02	(0.23)	21.75	20.96	0.00	-	0.01	0.25	-	(0.23)	-	
53	Aleris Rolled Products, LLC*	USA	INR	2,248.67	(302.21)	3,060.96	1,114.51	0.00	3,088.04	190.11	-	(496.82)	(306.71)	-	100
			USD	307.41	(41.32)	418.46	152.36	0.00	415.97	25.61	-	(66.92)	(41.32)	-	
54	Aleris Rolled Products Sales Corporation*	USA	INR	0.02	(18.05)	103.62	121.65	0.00	-	(18.32)	-	-	(18.32)	-	100
			USD	0.00	(2.47)	14.17	16.63	0.00	-	(2.47)	-	-	(2.47)	-	
55	IMCO Recycling of Ohio, LLC*	USA	INR	177.19	8.76	563.40	377.45	0.00	231.67	8.89	-	-	8.89	-	100
			USD	24.22	1.20	77.02	51.60	0.00	31.21	1.20	-	-	1.20	-	
56	Nichols Aluminum LLC*	USA	INR	1,565.70	327.14	2,221.95	329.11	0.00	2,246.06	332.01	-	-	332.01	-	100
			USD	214.04	44.72	303.76	44.99	0.00	302.56	44.72	-	-	44.72	-	
57	Nichols Aluminum-Alabama LLC*	USA	INR	2.35	(2.46)	37.72	37.83	0.00	-	(2.49)	-	-	(2.49)	-	100
			USD	0.32	(0.34)	5.16	5.17	0.00	-	(0.34)	-	-	(0.34)	-	
58	Name Acquisition Co.*	USA	INR	70.16	(30.35)	42.13	2.32	0.00	-	(28.51)	2.29	-	(30.80)	-	100
			USD	9.59	(4.15)	5.76	0.32	0.00	-	(3.84)	0.31	-	(4.15)	-	
59	Aleris Holding Canada ULC*	Canada, Nova Scotia	INR	-	0.03	0.03	-	0.00	-	0.03	-	-	0.03	-	100
			USD	-	0.00	0.00	-	0.00	-	0.00	-	-	0.00	-	
60	Aleris Aluminum Netherlands B.V.*	Netherlands	INR	6,569.55	(720.18)	5,869.67	20.30	0.00	-	(546.54)	1.70	-	(548.24)	-	100
			USD	765.82	(83.95)	684.23	2.37	0.00	-	(63.13)	0.20	-	(63.32)	-	
61	Aleris Switzerland GmbH*	Switzerland	INR	0.15	31.75	125.01	93.10	0.00	-	1.48	0.06	-	1.42	-	100
			CHF	0.02	4.10	16.16	12.03	0.00	-	0.18	0.01	-	0.18	-	

Sr.	Name of the Subsidiary Company	Country	Reporting currency	Capital	Reserves	Total Assets	Total Liabilities	Investments Shares, Debnture, Bonds & Others	Turnover/ Revenues	Profit/(Loss) before Tax	Provision for Tax	Gain/ Loss from Discontinued Operations	Profit/(Loss) after Tax .	Proposed Dividend	% of Share Holding
62	Aleris Aluminum Poland Sp. z o.o.*	Poland	INR	0.38	0.01	0.63	0.24	0.00	1.30	0.01	-	-	0.01	-	100
			PLN	0.20	0.00	0.32	0.12	0.00	0.66	0.00	-	-	0.00	-	
63	Aleris Aluminum France S.a.r.L*	France	INR	0.32	1.79	10.42	8.32	0.00	5.52	0.15	0.38	-	(0.23)	-	100
			EUR	0.04	0.21	1.22	0.97	0.00	0.64	0.02	0.04	-	(0.03)	-	
64	Aleris Aluminum UK Limited*	United Kingdom	INR	0.00	0.62	1.09	0.47	0.00	2.43	0.19	0.04	-	0.16	-	100
			USD	0.00	0.06	0.11	0.05	0.00	0.25	0.02	0.00	-	0.02	-	
65	Aleris Aluminum Denmark ApS*	Denmark	INR	0.14	0.23	0.67	0.30	0.00	-	(0.01)	0.00	-	(0.01)	-	100
			USD	0.13	0.19	0.58	0.26	0.00	-	(0.01)	0.00	-	(0.01)	-	
66	Aleris Aluminum Japan, Ltd.*	Japan	INR	0.79	1.04	2.82	0.99	0.00	0.43	0.03	0.03	-	0.00	-	100
			JPY	12.00	15.77	42.74	14.97	0.00	6.10	0.42	0.39	-	0.03	-	
67	Aleris Asia Pacific International (Barbados) Ltd.*	Barbados	INR	20.25	(0.03)	20.74	0.52	0.00	-	0.01	-	-	0.01	-	100
			USD	2.77	(0.00)	2.83	0.07	0.00	-	0.00	-	-	0.00	-	
68	Aleris (Shanghai) Trading Co., Ltd.*	China	INR	48.83	(14.89)	131.15	97.21	0.00	373.85	27.71	7.01	-	20.70	-	100
			CNY	43.74	(13.34)	117.48	87.08	0.00	341.09	25.28	6.40	-	18.88	-	
69	Aleris Asia Pacific Limited*	Hong Kong	INR	3,586.94	(1,588.71)	2,011.69	13.46	0.00	19.89	(1,601.39)	-	-	(1,601.39)	-	100
			USD	490.36	(217.19)	275.01	1.84	0.00	2.68	(215.71)	-	-	(215.71)	-	
70	Aleris Aluminum (Zhenjiang) Co., Ltd.*	China	INR	3,273.72	(1,744.63)	3,103.25	1,574.16	0.00	932.14	(18.26)	-	-	(18.26)	-	100
			CNY	2,932.60	(1,562.84)	2,779.89	1,410.14	0.00	850.46	(16.66)	-	-	(16.66)	-	
71	Hindalco Do Brazil Industria Comercia de Alumina LTDA*	Brazil	INR	1,007.43	(941.66)	231.15	165.38	0.00	236.26	(9.90)	-		(9.90)	-	100
			Reais	24.45	(22.86)	5.61	4.01	0.00	5.89	(0.25)	-		(0.25)	-	

Deutsche Aluminium Verpackung Recycling GmbHAssociate Company – Not consolidated with 20% ownership

France Aluminium Recyclage SA Associate Company – Not consolidated with 30% ownership

 # Subsidiary of AV Minerals (Netherlands) N.V.

Subsidiary of AV Metals Inc.

@ Subsidiary of Utkal Alumina Interanational Limited

% De-registered/Dissolved/Liquidated etc. -

$ Under Liquidation

^ Held for Sale

** Balance sheet items are translated at closing exchange rate and Profit/(Loss) items are translated at average exchange rate.*

{} For Indian Entities Revenue includes Turnover + Other Income

List of Subsidiaries which have been liquidated / amalgameted / sold during FY 20-21

a. Novelis Acquisitions LLC – Company merged into Aleris Corporation after Aleris acquisition on April 14, 2020.

b. Aleris Aluminum Duffel BV and Aleris Aluminum Italy S.r.l. - companies was sold to LIBERTY (Alvance) on September 30, 2020.

c. Aleris Rolled Products Canada ULC and Aleris Rolled Products Mexico, S.de R.L.de C.V. were divested as part of the sale of the Lewisport Plant to Velocium ABS Corp. on December 1, 2020.

d. Aleris Worldwide, Inc. merged into Aleris Ohio Management, Inc. on December 12, 2020.

e. Intl Acquisition Co. merged into Aleris International, Inc. on December 12, 2020.

f. Aleris Ohio Management, Inc. merged into Aleris International, Inc. on December12, 2020.

g. Aleris Deutschland Vier GmbH & Co. KG was dissolved on December 15, 2020.

h. Dutch Aluminum C.V. was dissolved on December 11, 2020.

i. Aleris Holding Luxembourg S.à r.l. was liquidated on December 31, 2020.

j. Aleris Deutschland Vierte Verwaltungs GmbH merged into Aleris Deutschland Holding GmbH on Febraury 2, 2021.

From Ccy	*To Ccy*	*Avg spot rate for the year*	*Closing rate for 31st March 2021*
AUD	*INR*	*53.3214*	*55.5819*
BRL	*INR*	*13.7469*	*12.9885*
CAD	*INR*	*56.1948*	*58.2068*
CHF	*INR*	*80.4429*	*77.3690*
CNY	*INR*	*10.9604*	*11.1632*
EUR	*INR*	*86.5786*	*85.7849*
GBP	*INR*	*97.0311*	*100.8462*
JPY	*INR*	*0.7002*	*0.6606*
NOK	*INR*	*8.1167*	*8.5504*
SEK	*INR*	*8.3712*	*8.3771*
SGD	*INR*	*54.3439*	*54.3774*
USD	*INR*	*74.2364*	*73.1485*

From Ccy	*To Ccy*	*Avg spot rate for the year*	*Closing rate for 31st March 2021*
BRL	***USD***	*0.1852*	*0.1776*
CHF	***USD***	*1.0840*	*1.0577*
CNY	***USD***	*0.1477*	*0.1526*
EUR	***USD***	*1.1669*	*1.1728*
GBP	***USD***	*1.3078*	*1.3787*
JPY	***USD***	*0.0094*	*0.0090*
SEK	***USD***	*0.1129*	*0.1145*
SGD	***USD***	*0.7323*	*0.7434*

List of Subsidiaries which are yet to commence operations:
East Coast Bauxite Mining Co Pvt Ltd.

Part "B" - Statement pursuant to Section 129 (3) of the Companies Act, 2013 related to Associate Companies and Joint Ventures

Sr. No.	Name of Associates / Joint Ventures	Latest Audited Balance Sheet Date	Number of shares	Amount of investment (Rs. in crore)	Extent of Holding% attributable	Networth to Shareholding as per latest audited balance sheet (Rs. in Crore)	Considered in consolidation (Rs. in Crore)	Not considered in consolidation	Description of how there is significant influence	Base on why the associate / joint venture is not considered
Associates										
1	Aditya Birla Science and Technology Company Private Limited	31-Mar-21	9,800,000	9.80	49.00	22.90	4.49		Note A	
2	Aditya Birla Renewables Subsidiary Ltd	31-Mar-21	6,895,200	6.90	26.00	7.56	1.21		Note A	
3	Aditya Birla Renewable Utkal Limited (ABRUL)	31-Mar-21	1,274,000	1.27	26.00	1.52	0.07		Note A	
4	**Associates of Novelis Inc. @**		3,001.00	2.17		(1.62)	0.07			
5	Aditya Birla Renewable Solar Limited	31-Mar-21			26.00				Note A	
Joint Ventures										
1	Hydromine Global Minerals (GMBH) Limited	31-Mar-21	66,562	1.37	45.00	30.45	-		Note B & C	
2	MNH Shakti Limited	31-Mar-21	12,765,000	12.77	15.00	13.41	0.82		Note C	
Joint Operations										
1	Mahan Coal Limited	31-Mar-20	41,250,000	19.25	50.00	11.57	1.19			
2	Tubed Coal Mines Limited	31-Mar-20	15,296,700	0.00	60.00	1.72	(0.08)			
3	Associates of Novelis Inc. ©		10,041.00	2,227.58		92.38	46.21			
@ - Associates of Novelis Inc.										
	Deutsche Aluminium VerpackungReccling GMBH	31-Dec-20	3,000	0.39	20%	(0.05)	0.06	Equity		
	France Aluminium Recyclage SA	31-Dec-20	1	1.79	30%	(1.57)	0.01	Equity		
© - Joint Operations of Novelis Inc.										
	Aluminium Norf GmbH	31-Dec-20	1	263	50%	147	14	Equity		
	Ulsan Aluminium Limited	31-Mar-21	5,000	1,942	50%	71	32	Equity		
	Logan Aluminum Inc.	31-Mar-21	40	0.00	40%	(125)	1	Consolidated		
	AluInfra Services SA	31-Dec-20	5,000	23	50%	-	-	Equity		

Note A There is significant influence due to percentage holding of share capital

Note B Non-availability of financial statements

Note C The Group has joint control over the joint arrangements

INDEPENDENT AUDITOR'S REPORT ON THE STANDALONE FINANCIAL STATEMENTS

To the Members of Hindalco Industries Limited

Report on the audit of the standalone financial statements

Opinion

1. We have audited the accompanying standalone financial statements of Hindalco Industries Limited ("the Company"), which comprise the Balance Sheet as at March 31, 2021, and the Statement of Profit and Loss (including Other Comprehensive Income), the Statement of Changes in Equity and the Statement of Cash Flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies and other explanatory information.

2. In our opinion and to the best of our information and according to the explanations given to us, the aforesaid standalone financial statements give the information required by the Companies Act, 2013 ("the Act") in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India, of the state of affairs of the Company as at March 31, 2021, and total comprehensive income (comprising of profit and other comprehensive income), changes in equity and its cash flows for the year then ended.

Basis for opinion

3. We conducted our audit in accordance with the Standards on Auditing (SAs) specified under Section 143(10) of the Act. Our responsibilities under those Standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the Code of Ethics issued by the Institute of Chartered Accountants of India together with the ethical requirements that are relevant to our audit of the financial statements under the provisions of the Act and the Rules thereunder, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the Code of Ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

4. Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter	How our audit addressed the key audit matter
A. Measurement of inventory quantities of coal, bauxite, copper concentrate and work in progress consisting of precious metals	
Refer Notes 1D (j) and 11 (d) to the standalone financial statements. Of the Company's Rs. 15,989 crores of inventory as at March 31, 2021, Rs. 3,179 crores of inventory comprised of coal, bauxite, copper concentrate and work in progress consisting of precious metals. This was determined a key audit matter, as the measurement of these inventory quantities lying at the Company's yards, smelters and refineries is complex and involves significant judgement and estimate resulting from measuring the surface area, dip measurement of materials in tanks/silos, etc. The Company uses internal and external experts, as applicable to perform volumetric surveys and assessments, basis which the quantities of these inventories are estimated.	Our audit procedures relating to the measurement of inventory quantities of coal, bauxite, copper concentrate and work in progress of precious metals included the following: • Understanding and evaluating the design and operating effectiveness of controls over physical count and measurement of such inventory; • Evaluation of competency and capabilities of management's experts; • Physically observing inventory measurement and count procedures carried out by management using experts, to ensure its appropriateness and completeness and performing roll forward procedures; and • Obtaining and inspecting inventory measurement and physical count results for such inventories, including assessing and evaluating the results of analysis performed by management in respect of differences between book and physical quantities. Based on the above procedures performed, we did not identify any material exceptions in the measurement of inventory quantities of coal, bauxite, copper concentrate and work in progress inventories consisting of precious metals.

Key audit matter	How our audit addressed the key audit matter
B. Provisions recognised and contingencies disclosed with regard to certain legal and tax matters	
Refer Notes 1D (i), 10, 22, 23, and 44 to the standalone financial statements. As at March 31, 2021, the Company has paid deposits under protest, recognised provisions and disclosed contingent liabilities towards various legal and tax matters. There are number of legal, direct and indirect tax cases against the Company, including environmental, mining, local and state levies, income tax holidays, availing of input tax credits etc. This is a key audit matter, as evaluation of these matters requires management judgement and estimation, interpretation of laws and regulations and application of relevant judicial precedents to determine the probability of outflow of economic resources for recognising provisions, disclosing contingent liabilities and making related disclosures in the standalone financial statements.	Our audit procedures relating to provisions recognised and contingencies disclosed regarding certain legal and tax matters included the following: • Understanding and evaluating the design and operating effectiveness of controls over the recognition, measurement, presentation and disclosures made in the standalone financial statements in respect of these matters; • Obtaining details of legal and tax matters, inspecting the supporting documents to evaluate management's assessment of probability of outcome and the magnitude of potential loss, and testing related to provisions and disclosures in the standalone financial statements; • Reviewing orders and other communication from regulatory authorities and management responses thereto; • Reviewing management expert's legal advice and opinion as applicable, obtained by the Company's management for evaluating certain legal matters and evaluating competence and capabilities of the experts; and • Using auditor's experts for assistance in evaluating certain significant and complex direct and indirect tax matters. Based on the above procedures performed, we did not identify any material exceptions in the provisions recognised and contingent liabilities disclosed in the standalone financial statements with regard to such legal and tax matters.
C. Accounting of derivatives and hedging transactions	
Refer Notes 1B (Q) and 49 to the standalone financial statements. Company's financial performance is significantly impacted by fluctuations in prices of aluminium, copper, gold, silver, furnace oil, coal, coal tar pitch, foreign exchange rates and interest rates. The Company takes a structured approach to the identification, quantification and hedging of such risks by using various derivatives (e.g. forwards, swaps, futures, options and embedded derivatives) in commodities and/ or foreign currencies. These hedges are designated as either cash flow or fair value hedges, and in certain cases remains non-designated. As at March 31, 2021, the carrying value of the Company's derivatives included derivative assets amounting to Rs. 720 crores and derivative liabilities amounting to Rs. 1,945 crores.	Our audit procedures related to accounting of derivatives and hedging transactions included the following: • Understanding and evaluating the design and operating effectiveness of controls over accounting of derivatives and hedging transactions; • Testing qualifying criteria for hedge accounting in accordance with Ind AS 109, including: ✓ Understanding the risk management objectives and strategies for different types of hedging programs; ✓ Evaluating that the hedging relationship consists only of eligible hedging instruments and hedged items; ✓ Using auditor's expert for assistance in verifying hedge effectiveness requirements of Ind AS 109, Financial Instruments, including the economic relationship between the hedged item and the hedging instrument.

Key audit matter	How our audit addressed the key audit matter
Derivative and hedge accounting is considered a key audit matter, because of its significance to the standalone financial statements, the volume, nature and types of hedging relationships, including complexity involved in the application of hedge accounting principles in accordance with Ind AS 109, Financial Instruments.	• Testing appropriateness of hedge accounting to qualified hedge relationships i.e. cash flow and fair value hedges; and • Testing related presentation and disclosures in the standalone financial statements. Based on the above procedures performed, we did not identify any material exceptions in the amounts, presentation and disclosures made in the standalone financial statements relating to accounting of derivatives and hedging transactions.

Other information

5. The Company's Board of Directors is responsible for the other information. The other information comprise the information included in the annual report, but does not include the financial statements and our auditor's report thereon. The annual report is expected to be made available to us after the date of this auditor's report.

   Our opinion on the financial statements does not cover the other information and we will not express any form of assurance conclusion thereon.

   In connection with our audit of the financial statements, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the standalone financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

   When we read the annual report, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance and take appropriate action as applicable under the relevant laws and regulations.

Responsibilities of management and those charged with governance for the standalone financial statements

6. The Company's Board of Directors is responsible for the matters stated in Section 134(5) of the Act with respect to the preparation of these standalone financial statements that give a true and fair view of the financial position, financial performance, changes in equity and cash flows of the Company in accordance with the accounting principles generally accepted in India, including the accounting Standards specified under Section 133 of the Act. This responsibility also includes maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding of the assets of the Company and for preventing and detecting frauds and other irregularities; selection and application of appropriate accounting policies; making judgments and estimates that are reasonable and prudent; and design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and presentation of the financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

7. In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so. Those Board of Directors are also responsible for overseeing the Company's financial reporting process.

Auditor's responsibilities for the audit of the financial statements

8. Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

9. As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

   - Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

   - Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances. Under Section 143 (3) (i) of the Act, we are also responsible for expressing our opinion on whether the Company has adequate internal financial controls with reference to financial statements in place and the operating effectiveness of such controls.

   - Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

   - Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.

   - Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

10. We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

11. We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

12. From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on other legal and regulatory requirements

13. As required by the Companies (Auditor's Report) Order, 2016 ("the Order"), issued by the Central Government of India in terms of sub-section (11) of Section 143 of the Act, we give in the "**Annexure A**" a statement on the matters specified in paragraphs 3 and 4 of the Order, to the extent applicable.

14. As required by Section 143(3) of the Act, we report that:

    (a) We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit;

    (b) In our opinion, proper books of account as required by law have been kept by the Company so far as it appears from our examination of those books;

    (c) The Balance Sheet, the Statement of Profit and Loss (including Other Comprehensive Income), the Statement of Changes in Equity and the Statement of Cash Flows dealt with by this Report are in agreement with the books of account;

    (d) In our opinion, the aforesaid standalone financial statements comply with the Accounting Standards specified under Section 133 of the Act;

    (e) On the basis of the written representations received from the directors as on March 31, 2021 taken on record by the Board of Directors, none of the directors is disqualified as on March 31, 2021 from being appointed as a director in terms of Section 164 (2) of the Act;

    (f) With respect to the adequacy of the internal financial controls with reference to financial statements of the Company and the operating effectiveness of such controls, refer to our separate Report in "**Annexure B**";

    (g) With respect to the other matters to be included in the Auditor's Report in accordance with Rule 11 of the Companies (Audit and Auditors) Rules, 2014, in our opinion and to the best of our information and according to the explanations given to us:

i. The Company has disclosed the impact of pending litigations on its financial position in its financial statements – Refer Notes 22, 23 and 44 to the standalone financial statements;

ii. The Company has made provision, as required under the applicable law or accounting standards, for material foreseeable losses, if any, on long-term contracts including derivative contracts – Refer Notes 22 and 49 to the standalone financial statements;

iii. There has been no delay in transferring amounts, required to be transferred, to the Investor Education and Protection Fund by the Company except amount of Rs. * crore;

iv. The reporting on disclosures relating to Specified Bank Notes is not applicable to the Company for the year ended March 31, 2021.

* represent figures below the rounding convention used in this report

15. The Company has paid/ provided for managerial remuneration in accordance with the requisite approvals mandated by the provisions of Section 197 read with Schedule V to the Act.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration Number: 304026E/ E-300009

Sumit Seth
Partner
Membership Number: 105869
UDIN: 21105869AAAAAK1640

Mumbai
May 21, 2021

ANNEXURE A TO INDEPENDENT AUDITOR'S REPORT

Referred to in paragraph 13 of the Independent Auditor's Report of even date to the members of Hindalco Industries Limited on the standalone financial statements as of and for the year ended March 31, 2021

i. (a) The Company is maintaining proper records showing full particulars, including quantitative details and situation, of fixed assets.

(b) The fixed assets are physically verified by the Management according to a phased programme designed to cover all the items over a period of 3 years, which, in our opinion, is reasonable having regard to the size of the Company and the nature of its assets. Pursuant to the programme, a portion of the fixed assets has been physically verified by the Management during the year and no material discrepancies have been noticed on such verification.

(c) The title deeds of immovable properties, as disclosed in Note 2 on Property Plant and Equipment and Note 3 on Investment Properties to the standalone financial statements, are held in the name of the Company, except for the following:

i. in respect of freehold land (Birla Copper, Muri and Hirakud units) having gross block of Rs. * crore and building (Birla Copper unit, Delhi and Mumbai branch) having gross block of Rs. 11 crores, the title deeds of which are held in the name of erstwhile companies which have subsequently been amalgamated with the Company.

ii. in respect of freehold land (Mahan and Kathotia units) having gross block of Rs. 31 crores, the title deeds of which are yet to be transferred in the name of the Company; and

iii. in respect of building (Birla Copper unit, Mumbai and Delhi branch) having gross block of Rs. 18 crores appearing in the fixed asset register, the title deeds for such assets amounting to Rs. 15 crores are presently not readily available with the Company.

*Represent figures below the rounding off convention used in this report

ii. The physical verification of inventory, excluding stocks with third parties, have been conducted at reasonable intervals by the Management during the year. In respect of inventory lying with third parties, these have substantially been confirmed by them. The discrepancies noticed on physical verification of inventory as compared to book records were not material.

iii. The Company has not granted any loans, secured or unsecured, to companies, firms, limited liability partnerships or other parties covered in the register maintained under Section 189 of the Act. Therefore, the provisions of Clause 3(iii), (iii)(a), (iii)(b) and (iii)(c) of the said Order are not applicable to the Company.

iv. In our opinion, and according to the information and explanations given to us, the Company has complied with the provisions of Sections 185 and 186 of the Act in respect of the loans and investments made, and guarantees and security provided by it.

v. The Company has not accepted any deposits from the public within the meaning of Sections 73, 74, 75 and 76 of the Act and the Rules framed thereunder to the extent notified.

vi. Pursuant to the rules made by the Central Government of India, the Company is required to maintain cost records as specified under Section 148(1) of the Act in respect of its products. We have broadly reviewed the same, and are of the opinion that, prima facie, the prescribed accounts and records have been made and maintained. We have not, however, made a detailed examination of the records with a view to determine whether they are accurate or complete.

vii. (a) According to the information and explanations given to us and the records of the Company examined by us, in our opinion, the Company is generally regular in depositing undisputed statutory dues in respect of provident fund, employees' state insurance, income tax, sales tax, service tax, duty of customs, duty of excise, value added tax, cess, goods and services tax and other material statutory dues, as applicable, with the appropriate authorities. Also refer Note 31 to the standalone financial statements regarding management's assessment on certain matters relating to provident fund.

(b) According to the information and explanations given to us and the records of the Company examined by us, there are no dues of income tax, which have not been deposited on account of any dispute. The particulars of dues of sales tax, service tax, duty of customs, duty of excise, value added tax and goods and services tax as at March 31, 2021, which have not been deposited on account of a dispute, are as follows:

Name of the statute	Nature of dues	Amount (₹ in crores)	Period to which the amount relates	Forum where the disputes are pending
Central Sales Tax Act and Local Sales Tax (including VAT) Act	Sales Tax	32	1995-2009, 2014-2016	Assistant Commissioner/Deputy Commissioner /Commissioner/ Revisionary Authorities/ Joint Commissioner (A) /Additional Commissioner (A)
		*	2005-2006, 2009-2011	Tribunal
		33	1999-2004, 2006-2007 2012-2013	High Court
The Central Excise Act, 1944	Excise Duty	11	2000-2003, 2008-2009, 2012-2018	Assistant Commissioner/ Commissioner/ Revisionary Authorities/ Commissioner (A)
		1,059	2001-2018	Customs, Excise and Service Tax Appellate Tribunal (CESTAT)
		10	2001-2008	High Court
The Customs Act, 1962	Custom Duty	*	2004-2005, 2020-2021	Commissioner (Appeal)
		1	2004-2005, 2016-2017	Customs, Excise and Service Tax Appellate Tribunal (CESTAT)
The Service Tax under the Finance Act, 1994	Service Tax	5	2001-2002, 2008-2013, 2016-2018	Assistant Commissioner/ Commissioner/ Revisionary Authorities/ Commissioner (A)
		402	2004-2013, 2015-2018	Customs, Excise and Service Tax Appellate Tribunal (CESTAT)
		16	2013-2016	High Court
The Central Goods and Service Tax Act, 2017	Goods and Services Tax	1	2017-2018	Commissioner (Appeal)
		27	2017-2018	High Court

*Represent figures below the rounding off convention used in this report

viii. According to the records of the Company examined by us, and the information and explanations given to us, the Company has not defaulted in repayment of loans or borrowings to any banks, financial institution or dues to debenture holders as at the balance sheet date. The Company does not have any loans or borrowings from Government as at the balance sheet date, therefore the provisions of Clause 3(viii) of the Order, to the extent, are not applicable to the Company.

ix. In our opinion, and according to the information and explanations given to us, the moneys raised by way of term loans have been applied for the purposes for which they were obtained. The Company has not raised any moneys during the year by way of initial public offer and further public offer (including debt instruments).

x. During the course of our examination of the books and records of the Company, carried out in accordance with the generally accepted auditing practices in India, and according to the information and explanations given to us, we have neither come across any instance of material fraud by the Company or on the Company by its officers or employees, noticed or reported during the year, nor have we been informed of any such case by the Management.

xi. The Company has paid/ provided for managerial remuneration in accordance with the requisite approvals mandated by the provisions of Section 197 read with Schedule V to the Act. Also refer paragraph 15 of our main audit report.

xii. As the Company is not a Nidhi Company, and the Nidhi Rules, 2014, are not applicable to it, the provisions of Clause 3(xii) of the Order are not applicable to the Company.

xiii. The Company has entered into transactions with related parties in compliance with the provisions of Sections 177 and 188 of the Act. The details of such related party transactions have been disclosed in the standalone financial statements as required under Indian Accounting Standard (Ind AS) 24, Related Party Disclosures specified under Section 133 of the Act.

xiv. The Company has not made any preferential allotment or private placement of shares or fully or partly convertible debentures during the year under review. Accordingly, the provisions of Clause 3(xiv) of the Order are not applicable to the Company.

xv. The Company has not entered into any non-cash transactions with its directors or persons connected with them, to which Section 192 of the Act applies. Accordingly, the provisions of Clause 3(xv) of the Order are not applicable to the Company.

xvi. The Company is not required to be registered under Section 45-IA of the Reserve Bank of India Act, 1934. Accordingly, the provisions of Clause 3(xvi) of the Order are not applicable to the Company.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration Number: 304026E/ E-300009

Sumit Seth
Partner
Membership Number: 105869
UDIN: 21105869AAAAAK1640

Mumbai
May 21, 2021

ANNEXURE B TO INDEPENDENT AUDITOR'S REPORT

Referred to in paragraph 14 (f) of the Independent Auditor's Report of even date to the members of Hindalco Industries Limited on the standalone financial statements as of and for the year ended March 31, 2021

Report on the internal financial controls with reference to financial statements under Clause (i) of Sub-section 3 of Section 143 of the Act

1. We have audited the internal financial controls with reference to financial statements of Hindalco Industries Limited ("the Company") as of March 31, 2021 in conjunction with our audit of the standalone financial statements of the Company for the year ended on that date.

Management's responsibility for internal financial controls

2. The Company's management is responsible for establishing and maintaining internal financial controls based on the internal control over financial reporting criteria established by the Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India (ICAI). These responsibilities include the design, implementation and maintenance of adequate internal financial controls that were operating effectively for ensuring the orderly and efficient conduct of its business, including adherence to company's policies, the safeguarding of its assets, the prevention and detection of frauds and errors, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information, as required under the Act.

Auditor's responsibility

3. Our responsibility is to express an opinion on the Company's internal financial controls with reference to financial statements based on our audit. We conducted our audit in accordance with the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting (the "Guidance Note") and the Standards on Auditing deemed to be prescribed under Section 143(10) of the Act to the extent applicable to an audit of internal financial controls, both applicable to an audit of internal financial controls and both issued by the ICAI. Those Standards and the Guidance Note require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether adequate internal financial controls with reference to financial statements was established and maintained and if such controls operated effectively in all material respects.

4. Our audit involves performing procedures to obtain audit evidence about the adequacy of the internal financial controls system with reference to financial statements and their operating effectiveness. Our audit of internal financial controls with reference to financial statements included obtaining an understanding of internal financial controls with reference to financial statements, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error.

5. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion on the Company's internal financial controls system with reference to financial statements.

Meaning of internal financial controls with reference to financial statements

6. A company's internal financial controls with reference to financial statements is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal financial controls with reference to financial statements includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorisations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorised acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Inherent limitations of internal financial Controls with reference to financial statements

7. Because of the inherent limitations of internal financial controls with reference to financial statements, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of the internal financial controls with reference to financial statements to future periods are subject to the risk that the internal financial controls with reference to financial statements may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Opinion

8. In our opinion, the Company has, in all material respects, an adequate internal financial controls system with reference to financial statements and such internal financial controls with reference to financial statements were operating effectively as at March 31, 2021, based on the internal control over financial reporting criteria established by the Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India.

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration Number: 304026E/ E-300009

Sumit Seth
Partner
Membership Number: 105869
UDIN: 21105869AAAAAK1640

Mumbai
May 21, 2021

STANDALONE BALANCE SHEET

As at March 31, 2021

(₹ in Crore)

	Note	As At 31/03/2021	As At 31/03/2020
ASSETS			
Non-Current Assets			
Property, Plant and Equipment (including Right of Use Assets)	2	32,061	33,045
Capital Work-in-Progress	2	1,587	1,209
Investment Properties	3	8	9
Intangible Assets	4	321	314
Intangible Assets Under Development	4	122	73
Financial Assets			
Investment in Subsidiaries	5	16,794	16,793
Investment in Associates and Joint Ventures	6	142	48
Other Investments	7A	7,437	2,959
Loans	8	11	14
Derivatives	49	225	46
Other Financial Assets	9A	188	165
Non-Current Tax Assets (Net)	23	-	325
Other Non-Current Assets	10	843	717
		59,739	55,717
Current Assets			
Inventories	11	15,989	11,225
Financial Assets			
Investments	7B	7,358	4,839
Trade Receivables	12	1,602	2,093
Cash and Cash Equivalents	13	1,003	3,265
Bank Balances other than Cash and Cash Equivalents	14	16	15
Loans	8	49	55
Derivatives	49	495	862
Other Financial Assets	9B	254	120
Other Current Assets	10	1,438	1,799
		28,204	24,273
Non-Current Assets or Disposal Group Classified as Held For Sale	15	4	68
		28,208	24,341
		87,947	**80,058**
EQUITY AND LIABILITIES			
Equity			
Equity Share Capital	16	222	222
Other Equity	17	49,842	45,272
		50,064	45,494
Liabilities			
Non-Current Liabilities			
Financial Liabilities			
Borrowings	18A	15,174	15,660
Lease Liabilities	2	236	241
Trade Payables	20		
(I) Outstanding dues of micro enterprises and small enterprises;		-	-
(II) Outstanding dues of creditors other than micro enterprises and small enterprises		-	-
Derivatives	49	390	141
Other Financial Liabilities	21A	10	8
Provisions	22	421	497
Deferred Tax Liabilities (Net)	23	1,966	1,975
Other Non-Current Liabilities	25	609	628
		18,806	19,150

(₹ in Crore)

	Note	As At 31/03/2021	As At 31/03/2020
Current liabilities			
Financial Liabilities			
Borrowings	18B	4,290	7,384
Lease Liabilities	2	75	76
Supplier's Credit	19	255	-
Trade Payables	20		
(I) Outstanding dues of micro enterprises and small enterprises;		52	17
(II) Outstanding dues of creditors other than micro enterprises and small enterprises		8,748	3,973
Derivatives	49	1,555	487
Other Financial Liabilities	21B	1,402	1,004
Provisions	22	831	928
Current Tax Liabilities (Net)	23	1,168	997
Contract Liabilities	24	136	158
Other Current Liabilities	25	565	390
		19,077	15,414
		37,883	34,564
		87,947	**80,058**
Basis of Preparation and Significant Accounting Policies	1		

The accompanying Notes are an integral part of the Standalone Financial Statements

This is the Standalone Balance Sheet referred in our report of even date

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sumit Seth
Partner
Membership No. 105869

For and on behalf of the Board of Hindalco Industries Limited

Praveen Kumar Maheshwari
Whole-time Director &
Chief Financial Officer
DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Anil Malik
Company Secretary

K N Bhandari
Director
DIN- 00026078

Place : Mumbai
Date : May 21, 2021

STANDALONE STATEMENT OF PROFIT AND LOSS

for the year ended March 31, 2021

(₹ in Crore)

	Note	Year ended 31/03/2021	Year ended 31/03/2020
INCOME			
Revenue from Operations	26	42,701	40,242
Other Income	27	650	739
Total Income		**43,351**	**40,981**
EXPENSES			
Cost of Materials Consumed	28	27,324	22,585
Trade Purchases	29	1,098	256
Changes in inventories of Finished Goods, Work-in-Progress and Stock-in-Trade	30	(1,821)	-
Employee Benefits Expense	31	1,844	1,922
Power and Fuel	32	5,668	6,989
Finance Cost	33	1,469	1,679
Depreciation and Amortization Expense	34	1,708	1,708
Impairment Loss on Non-Current Assets	35	140	-
Impairment Loss/ (Reversal) on Financial Assets (Net)	36	(7)	4
Other Expenses	37	4,361	4,822
Total Expenses		**41,784**	**39,965**
Profit/(Loss) before Exceptional Items and Tax		1,567	1,016
Exceptional Income/ (Expenses) (Net)	38	7	(64)
Profit/(Loss) before Tax		**1,574**	**952**
Tax Expenses	23		
Current Tax Expense		283	137
Deferred Tax Expense		298	195
Profit/(Loss) for the year		**993**	**620**
Other Comprehensive Income/ (Loss)	39		
Items that will not be reclassified to Statement of Profit and Loss			
Remeasurement of Defined Benefit Obligation		57	(152)
Change in Fair Value of Equity Instruments Designated as FVTOCI		4,351	(2,582)
Income Tax effect		(20)	28
Items that will be reclassified to Statement of Profit and Loss			
Change in Fair Value of Debt Instruments Designated as FVTOCI		(9)	5
Effective Portion of Cash flow Hedges		(757)	(484)
Cost of Hedging Reserve		(168)	(589)
Income Tax effect		326	374
Other Comprehensive Income/ (Loss) for the year		**3,780**	**(3,400)**
Total Comprehensive Income/ (Loss) for the year		**4,773**	**(2,780)**

(₹ in Crore)

	Note	Year ended 31/03/2021	Year ended 31/03/2020
Earnings Per Share	40		
Basic (₹)		4.46	2.79
Diluted (₹)		4.46	2.79
Basis of Preparation and Significant Accounting Policies	1		

The accompanying Notes are an integral part of the Standalone Financial Statements
This is the Standalone Statement of Profit and Loss referred in our report of even date

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sumit Seth
Partner
Membership No. 105869

For and on behalf of the Board of Hindalco Industries Limited

Praveen Kumar Maheshwari
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DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Anil Malik
Company Secretary

K N Bhandari
Director
DIN- 00026078

Place : Mumbai
Date : May 21, 2021

STANDALONE STATEMENT OF CHANGES IN EQUITY

for the year ended March 31, 2021

A Equity Share Capital

(₹ in Crore)

Particulars	Note	Amount
Balance as at April 01, 2019	16	222
Changes in Equity Share Capital	-	
Balance as at March 31, 2020	16	222
Changes in Equity Share Capital	-	
Balance as at March 31, 2021	16	222

B Other Equity

(₹ in Crore)

Particulars	Note	Share Application Money Pending Allotment	Reserves and Surplus									Other Reserves				Total
			Capital Reserve	Capital Redemption Reserve	Business Recon-struction Reserve	Securities Premium	Debenture Redemption Reserve	Employee Stock Options	Treasury Shares held by ESOP Trust	General Reserve	Retained Earnings	Gain/ (Loss) on Equity Instruments FVTOCI	Gain/ (Loss) on Debt Instruments FVTOCI	Effective portion of Cash Flow Hedge	Cost of Hedging Reserve	
Balance as at April 01, 2019		-	145	102	7,715	8,206	1,050	22	-123	21,354	4,813	4,348	4	198	502	48,336
Transition Impact - Leases		-	-	-	-	-	-	-	-	-	(9)	-	-	-	-	(9)
Profit/ (Loss) for the year		-	-	-	-	-	-	-	-	-	620	-	-	-	-	620
Other Comprehensive Income/ (Loss) for the year		-	-	-	-	-	-	-	-	-	(124)	(2,582)	3	(314)	(383)	(3,400)
Total Comprehensive Income/ (Loss) for the year		-	-	-	-	-	-	-	-	-	496	(2,582)	3	(314)	(383)	(2,780)
Hedging (Gain)/ Loss and cost of hedging transferred to non-financial assets		-	-	-	-	-	-	-	-	-	-	-	-	14	-	14
Transfer to Debenture Redemption Reserve		-	-	-	-	-	150	-	-	-	(150)	-	-	-	-	-
Transactions with owners in their capacity as owners		-														
Shares Acquired by the Trust		-	-	-	-	-	-	-	(7)	-	-	-	-	-	-	(7)
Employee Share Based Transactions		-	-	-	-	11	-	(5)	-	-	-	-	-	-	-	6
Employee Share Options Expenses		-	-	-	-	-	-	28	-	-	-	-	-	-	-	28
Dividends Paid		-	-	-	-	-	-	-	-	-	(267)	-	-	-	-	(267)
Dividend Distribution Tax		-	-	-	-	-	-	-	-	-	(49)	-	-	-	-	(49)
Balance as at March 31, 2020	17	-	145	102	7,715	8,217	1,200	45	(130)	21,354	4,834	1,766	7	(102)	119	45,272

(₹ in Crore)

Particulars	Note	Share Application Money Pending Allotment	Reserves and Surplus									Other Reserves				Total
			Capital Reserve	Capital Redemption Reserve	Business Recon-struction Reserve	Securities Premium	Debenture Redemption Reserve	Employee Stock Options	Treasury Shares held by ESOP Trust	General Reserve	Retained Earnings	Gain/ (Loss) on Equity Instruments FVTOCI	Gain/ (Loss) on Debt Instruments FVTOCI	Effective portion of Cash Flow Hedge	Cost of Hedging Reserve	
Profit/ (Loss) for the year		-	-	-	-	-	-	-	-	-	993	-	-	-	-	993
Other Comprehensive Income/ (Loss) for the year		-	-	-	-	-	-	-	-	-	37	4,351	(6)	(493)	(109)	3,780
Total Comprehensive Income/ (Loss) for the year		-	-	-	-	-	-	-	-	-	1,030	4,351	(6)	(493)	(109)	4,773
Hedging (Gain)/ Loss and cost of hedging transferred to non-financial assets		-	-	-	-	-	-	-	-	-	-	-	-	(1)	-	(1)
Transfer to Debenture Redemption Reserve		-	-	-	-	-	150	-	-	-	(150)	-	-	-	-	-
Transactions with owners in their capacity as owners		-														
Employee Share Based Transactions		-	-	-	-	7	-	(4)	1	-	1	-	-	-	-	5
Employee Share Options Expenses		-	-	-	-	-	-	15	-	-	-	-	-	-	-	15
Employee Share Options Lapsed/Forfeited		-	-	-	-	-	-	(1)	-	-	1	-	-	-	-	-
Dividends Paid		-	-	-	-	-	-	-	-	-	(222)	-	-	-	-	(222)
Balance as at March 31, 2021	17	-	145	102	7,715	8,224	1,350	55	(129)	21,354	5,494	6,117	1	(596)	10	49,842
Basis of Preparation and Significant Accounting Policies	1															

The accompanying Notes are an integral part of the Standalone Financial Statements
This is the Standalone Statement of Changes in Equity referred in our report of even date

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sumit Seth
Partner
Membership No. 105869

For and on behalf of the Board of Hindalco Industries Limited

Praveen Kumar Maheshwari
Whole-time Director &
Chief Financial Officer
DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Anil Malik
Company Secretary

K N Bhandari
Director
DIN- 00026078

Place : Mumbai
Date : May 21, 2021

STANDALONE STATEMENT OF CASH FLOWS

for the year ended March 31, 2021

(₹ in Crore)

	Note	Year ended 31/03/2021	Year ended 31/03/2020
A. CASH FLOW FROM OPERATING ACTIVITIES			
Profit/ (Loss) before tax		1,574	952
Adjustment for :			
Finance Costs	33	1,469	1,679
Depreciation and Amortization Expense	34	1,708	1,708
Non-Cash Employee Share-Based payments	31	15	27
Impairment Loss/ (Reversal) on Financial Assets (Net)	36	(7)	4
Impairment Loss on Non-Current Assets	35	140	-
Other Non-Operating Income	27	(6)	(83)
Unrealised Foreign Exchange (Gain)/ Loss (Net)		(1)	57
Unrealised (Gain)/ Loss on Derivative Transactions (Net)		434	(116)
Fair Value (Gain)/ Loss on modification of Borrowings (Net)		(56)	(19)
(Gain)/ Loss on Assets held for Sale (Net)		-	3
(Gain)/ Loss on Property, Plant and Equipment and Intangible Assets Sold/ Discarded (Net)	27	20	16
Interest Income	27	(105)	(176)
Dividend Income	27	(18)	(56)
Exceptional Income	38	(127)	(25)
Changes in Cash Flow Hedges net of reclassification from OCI		(121)	(412)
(Gain)/ Loss on Investments measured at FVTPL (Net)	27	(421)	(345)
Operating profit before Working Capital Changes		4,498	3,214
Changes in Working Capital:			
(Increase)/ Decrease in Inventories (Net)	11	(3,927)	(615)
(Increase)/ Decrease in Trade Receivables	12	493	35
(Increase)/ Decrease in Financial Assets	9A & 9B	(35)	3
(Increase)/ Decrease in Non-Financial Assets	10	268	69
Increase/ (Decrease) in Trade Payables	20	4,022	(1,044)
Increase/ (Decrease) in Financial Liabilities	21A & 21B	(9)	25
Increase/ (Decrease) in Non-Financial Liabilities (including Contract Liabilities)	22,24 & 25	48	(216)
Cash Generated from Operation before Tax		5,358	1,471
Refund/ (Payment) of Income Tax (Net)		206	1,315
Net Cash Generated/ (Used) - Operating Activities		**5,564**	**2,786**
B. CASH FLOW FROM INVESTING ACTIVITIES			
Payments to acquire Property Plant and Equipment, Intangible Assets and Investment Property		(1,137)	(1,395)
Proceeds from disposal of Property Plant and Equipment, Intangible Assets and Investment Property		14	30
Sale proceeds from Slump Sale		-	25
Investment in Subsidiaries		(1)	(15)
Investment in Associates and Joint Ventures		-	(2)
Investment in Equity Shares at FVTOCI		(43)	(653)
(Purchase)/ Sale of Other Investments (Net)		(2,278)	(697)
Loans and Deposits given		(167)	(80)
Receipt of Loans and Deposits given		8	347
Interest Received		100	140
Dividend Received		18	56
Net Cash Generated/ (Used) - Investing Activities		**(3,486)**	**(2,244)**

(₹ in Crore)

	Note	Year ended 31/03/2021	Year ended 31/03/2020
C. CASH FLOW FROM FINANCING ACTIVITIES			
Proceeds from issue of Equity Shares (Including Share Application Money)		5	6
Treasury Shares acquired by ESOP Trust		-	(7)
Repayment of Long-Term Borrowings		(6)	-
Principal Payments of Leases Liabilities		(69)	(63)
Proceeds from/ (Repayment of) Current Borrowings (Net) (Refer Note 44)		(2,829)	3,121
Increase/ (Decrease) in Supplier's Credit		255	-
Finance Cost Paid		(1,440)	(1,562)
Dividend Paid (including Dividend Distribution Tax)		(222)	(314)
Net Cash Generated/ (Used) - Financing Activities		**(4,306)**	**1,181**
Net Increase/(Decrease) in Cash and Cash Equivalents		**(2,228)**	**1,723**
Add: Opening Cash and Cash Equivalents		3,231	1,508
Closing Cash and Cash Equivalents		1,003	3,231
Reconciliation of Closing Cash and Cash Equivalents with Balance Sheet:			
Cash and Cash Equivalents as per Balance Sheet	13	1,003	3,265
Less: Fair Value adjustments in Liquid Investments		-	(6)
Less: Temporary Overdraft Balance in Current Accounts	21B	-	(28)
Cash and Cash Equivalents as per Cash Flow Statement		1,003	3,231
Supplemental Information			
Non Cash Transactions from Investing and Financing Activities:			
Acquisition of Right of Use Assets		17	79
Basis of Preparation and Significant Accounting Policies	1		

The accompanying Notes are an integral part of the Standalone Financial Statements

This is the Standalone Statement of Cash Flows referred in our report of even date

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sumit Seth
Partner
Membership No. 105869

For and on behalf of the Board of Hindalco Industries Limited

Praveen Kumar Maheshwari
Whole-time Director &
Chief Financial Officer
DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Anil Malik
Company Secretary

K N Bhandari
Director
DIN- 00026078

Place : Mumbai
Date : May 21, 2021

NOTES FORMING PART OF THE STANDALONE FINANCIAL STATEMENTS

Company Overview

Hindalco Industries Limited ("the Company") was incorporated in India in the year 1958 having its registered office at Ahura Centre, 1st Floor, B Wing, Mahakali Caves Road, Andheri (East), Mumbai – 400093.

The Company has two main streams of business Aluminium and Copper. In Aluminium, the Company caters to the entire value chain starting from mining of bauxite and coal through production of value added products for various applications.

The Company along with its subsidiaries has manufacturing operations in ten countries including India spread over four continents North America, South America, Asia and Europe. Apart from primary aluminium, the Company produces aluminium sheet, extrusion and light gauge products for use in packaging market which includes beverage and food, can and foil products as well as for use in automotive, electronics, architecture, transportation and industrial product markets.

The Company also has one of the largest single location Copper smelting facility in India.

The equity shares of the Company are listed on National Stock Exchange of India Limited (NSE) and BSE Limited (BSE). GDRs are listed on the Luxemburg Stock Exchange.

1. Basis of Preparation and Significant Accounting Policies

1A. Basis of preparation

The separate financial statements of Hindalco Industries Limited ("the Company") comply in all material aspects with Indian Accounting Standards ("Ind-AS") as prescribed under section 133 of the Companies Act, 2013 ("the Act"), as notified under the Companies (Indian Accounting Standards) Rules, 2015 (including subsequent amendments) and other accounting principles generally accepted in India.

The financial statements for the year ended March 31, 2021 have been approved for issue by the Board of Directors of the Company in their meeting held on May 21, 2021.

The financial statements have been prepared on historical cost convention on accrual basis except for following assets and liabilities which have been measured at fair value:

- Certain financial instruments - measured at fair value;
- Assets held for sale - measured at fair value less cost to sell;
- Plan assets under defined benefit plans - measured at fair value;
- Liabilities for Cash settled share-based payments; and
- Inventories those are designated in a Fair value hedge relationship where both the derivative and inventory are fair valued.

In addition, the carrying values of recognised assets and liabilities designated as hedged items in fair value hedges that would otherwise be carried at cost are adjusted to record changes in the fair values attributable to the risks that are being hedged in effective hedge relationship.

Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Company take into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Fair value for measurement and/or disclosure purposes in these financial statements is determined on such a basis, except for employee share-based payment, leasing transactions, and measurements that have some similarities to fair value but are not fair value, such as net realisable value in Inventories or value in use in Impairment of Assets. The basis of fair valuation of these items are given as part of their respective accounting policies.

Company has determined current and non-current classification of its assets and liabilities in the financial statements as per the requirement of Ind AS 1 - 'Presentation of Financial Statements'. Based on its assessment, the Company has ascertained its normal operating cycle as 12 months for the purpose of current and non-current classification of its assets and liabilities.

In addition, for financial reporting purposes, fair value measurements are categorised into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the Company can access at the measurement date;
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

The Financial Statements have been presented in Indian Rupees (INR), which is the Company's functional currency. All financial information presented in INR has been rounded off to the nearest Crore Rupees (INR 1 Crore = INR 10,000,000) without any decimal unless otherwise stated.

1B. Significant Accounting Policies

A summary of the significant accounting policies applied in the preparation of the financial statements are as given below. These accounting policies have been applied consistently to all the periods presented in the financial statements.

A. Investment in Subsidiaries and joint ventures

The investments in subsidiaries and joint ventures are carried in the financial statements at historical cost except when the investment, or a portion thereof, is classified as held for sale, in which case measured at lower of carrying amount and fair value less costs to sell. When the Company is committed to a sale plan involving disposal of an investment, or a portion of an investment, in any subsidiary or joint venture, the investment or the portion of the investment that will be disposed of is classified as held for sale when the criteria described above are met. Any retained portion of an investment in a subsidiary or a joint venture that has not been classified as held for sale continues to be accounted for at historical cost.

Investments in subsidiaries and joint ventures carried at cost are tested for impairment in accordance with Ind AS 36 Impairment of Assets. The carrying amount of the investment is tested for impairment as a single asset by comparing its recoverable amount with its carrying amount, any impairment loss recognised reduces the carrying amount of the investment.

B. Investment in Associates

The investments in associates are carried in these financial statements at fair Value through Other Comprehensive Income (OCI).

C. Investment in joint operation

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

When the Company undertakes its activities under joint operations, the Company as a joint operator recognises in relation to its interest in a joint operation:

- its assets, including its share of any assets held jointly;
- its liabilities, including its share of any liabilities incurred jointly;
- its revenue from the sale of its share of the output arising from the joint operation;
- its share of the revenue from the sale of the output by the joint operation; and
- its expenses, including its share of any expenses incurred jointly

The Company accounts for the assets, liabilities, revenues and expenses relating to its interest in a joint operation in accordance with the standard applicable to the particular assets, liabilities, revenues and expenses.

When the Company transacts with a joint operation in which the Company is a joint operator (such as a sale or contribution of assets), the Company is considered to be conducting the transaction with the other parties to the joint operation, and gains and losses resulting from the transactions are recognised in the financial statements only to the extent of other parties' interests in the joint operation.

When the Company transacts with a joint operation in which the Company is a joint operator (such as a purchase of assets), the Company does not recognise its share of the gains and losses until it resells those assets to a third party.

See Note 5 - Investment in Subsidiaries and Note 6 -Investment in Associates Joint Ventures for further details

D. Property, Plant and Equipment

Property, plant and equipment held for use in the production or/and supply of goods or services, or for administrative purposes, are stated in the balance sheet at cost, less any subsequent accumulated depreciation and subsequent accumulated impairment losses.

The initial cost at cash price equivalent of property, plant and equipment acquired comprises its purchase price, including import duties and non-refundable purchase taxes, any directly attributable costs of bringing the assets to its working condition and location and present value of any obligatory decommissioning costs for its intended use. Cost may also include effective portion on qualifying cash flow hedges of foreign currency purchases of property, plant and equipment transferred from hedge reserve as basis adjustment.

In case of self-constructed assets, cost includes the costs of all materials used in construction, direct labour, allocation of overheads, directly attributable borrowing costs and effective portion of cash flow hedges of foreign currency transferred from the hedge reserve as basis adjustment.

Subsequent expenditure on major maintenance or repairs includes the cost of the replacement of parts of assets and overhaul costs. Where an asset or part of an asset is replaced and it is probable that future economic benefits associated with the item will be available to the Company, the expenditure is capitalised and the carrying amount of the item replaced is derecognised.

Similarly, overhaul costs associated with major maintenance which can be measured reliably are capitalised and depreciated over their useful lives where it is probable that future economic benefits will be available and any remaining carrying amounts of the cost of previous overhauls are derecognised. All other costs are charged to profit and loss during the reporting period in which they are incurred.

Capital work-in-progress

Capital work-in-progress comprises of tangible items in the course of construction for production or/and supply of goods or services or administrative purposes are carried at cost, less any accumulated impairment loss. At the point when an asset is capable of operating at management's intended use, the cost of construction is transferred to the appropriate category of property, plant and equipment. Costs associated with the commissioning of an asset are capitalised.

Depreciation

Depreciation is charged so as to write off the cost or value of assets, over their estimated useful lives. Depreciation is recorded using the straight line basis. The estimated useful lives and residual values are reviewed at each year end, with the effect of any changes in estimate accounted for on a prospective basis. Each component of an item of property, plant and equipment with a cost that is significant in relation to the total cost of that item is depreciated separately if its useful life differs from the others components of the asset.

Depreciation commences when the assets are ready for their intended use. Depreciated assets in Property, Plant & Equipment and accumulated depreciation amounts are retained fully until they are removed/retired from active use.

Leasehold improvements are depreciated over the shorter of their useful life or the lease term, unless the entity expects to use the assets beyond the lease term.

The useful life of the items of Property, Plant and Equipment estimated by the management for the current and comparative period are in line with the useful life as per Schedule II of the Companies Act, 2013, refer note 2.

Disposal of assets

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on the disposal or retirement of an item of property, plant and equipment is determined as the difference between net disposal proceeds and the carrying amount of the asset and is recognised in the statement of profit and loss.

See Note 2 - Property, Plant and Equipment (including ROU Assets) and Capital Work-in-Progress for further details

E. Investment properties

Investment properties held to earn rentals or for capital appreciation or both are stated in the balance sheet at cost, less any subsequent accumulated depreciation and subsequent accumulated impairment losses. Depreciation is charged on a straight line basis over their estimated useful lives. Any gain or loss on disposal of investment property is determined as the difference between net disposal proceeds and the carrying amount of the property and is recognized in the statement of profit and loss. Transfer to, or from, investment property is done at the carrying amount of the property. See Note 3 - Investment Properties for further details

F. Intangible Assets

Intangible assets acquired separately

Intangible assets acquired are reported at cost less accumulated amortization and accumulated impairment losses. Amortization is charged on a straight line basis over their estimated useful lives other than Mining rights. The estimated useful life and amortization method are reviewed at the end of each annual reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

Internally-generated intangible assets

Expenditure on research activities is recognized as an expense in the period in which it is incurred.

An internally-generated intangible asset arising from development (or from the development phase of an internal project) is recognized if, and only if all of the following can be demonstrated:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- management's intention to complete the intangible asset and use or sell it;
- the ability to use or sell the intangible asset;
- how the intangible asset will generate probable future economic benefits;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- the ability to measure reliably the expenditure attributable to the intangible asset during its development.

The amount initially recognized for internally-generated intangible assets is the sum of the expenditure incurred from the date when the intangible asset is recognised. Where no internally-generated intangible asset can be recognized, development expenditure is charged to the statement of profit and loss in the period in which it is incurred.

Subsequent to initial recognition, internally-generated intangible assets are reported at cost less accumulated amortization and accumulated impairment losses, on the same basis as intangible assets acquired separately.

Mineral Reserves, Resources and Rights (Mining Rights)

Mineral reserves, resources and rights (together referred to as 'mining rights') which can be reasonably valued, are recognised in the assessment of fair values on acquisition. Exploitable mineral rights are amortised using the unit of production basis over the commercially recoverable reserves. Mineral resources are included in amortisation calculations where there is a high degree of confidence that they will be extracted in an economic manner. Commercially recoverable reserves are proved and probable reserves. Changes in the commercial recoverable reserves affecting unit of production calculations are dealt with prospectively over the revised remaining reserves.

Exploration for and evaluation of mineral resources

Expenditures associated with exploration for and evaluation of mineral resources after obtaining of legal rights to explore a specific area but before technical feasibility and commercial viability of extracting mineral resources are demonstrable are recognized as Exploration and Evaluation assets.

If a project does not prove viable, all irrecoverable exploration and evaluation expenditure associated with the project net of any related impairment allowances is written off to the statement of profit and loss.

The Company measure its Exploration and Evaluation assets at cost and classifies it as Property, Plant and Equipment or Intangible Assets according to the nature of assets acquired and applies the classification consistently.

As the assets is not available for use, it is not depreciated but are monitored for indication of impairment. An exploration and evaluation asset is no longer classified as such when the technical feasibility and commercial viability of extracting minerals resources are demonstrable and the development of the deposit is intended by the management. The carrying value of such exploration and evaluation asset is reclassified as Mining Rights.

De-recognition of intangible assets

An intangible asset is derecognised on disposal, or when no future economic benefits are expected from use or disposal. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset are recognised in the statement of profit and loss when the asset is derecognised.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment annually, and whenever there is an indication that the asset may be impaired.

See Note 4 - Intangible Assets and Intangible Assets under Development for further details

G. Stripping cost

Stripping costs incurred during the mining production phase are allocated between cost of inventory produced and the existing mine asset. The stripping ratio, as approved by the regulatory authority, for the life of the mine is obtained by dividing the estimated quantity of overburden by the estimated quantity of mineable coal / bauxite reserve to be extracted over the life of the mine. This ratio is periodically reviewed and changes, if any, are accounted for prospectively.

Stripping costs are allocated and included as a component of the mine asset when they represent significantly improved access to ore, provided all the following conditions are met:

- it is probable that the future economic benefit associated with the stripping activity will be realised;
- the component of the ore body for which access has been improved can be identified; and

NOTES FORMING PART OF THE STANDALONE FINANCIAL STATEMENTS

- the costs relating to the stripping activity associated with the improved access can be reliably measured.

The overburden removal costs are included in Mining Rights under Intangible assets and amortised based on stripping ratio on the quantity of coal / bauxite excavated.

See Note 4 - Intangible Assets and Intangible Assets under Development for further details

H. Non-current assets (or disposal groups) held for sale

Non-current assets and disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the asset (or disposal Group) is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such asset (or disposal Group) and its sale is highly probable. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

Non-current assets (and disposal groups) classified as held for sale are measured at the lower of their carrying amount and fair value less costs to sell except for those assets that are specifically exempt under relevant Ind AS. Once the assets are classified as "Held for sale", those are not subjected to depreciation till disposal.

An impairment loss is recognised for any initial or subsequent write-down of the asset (or disposal group) to fair value less costs to sell. A gain is recognised for any subsequent increases in fair value less costs to sell of an asset (or disposal group), but not in excess of any cumulative impairment loss previously recognised.

A gain or loss not previously recognised by the date of the sale of the non-current asset (or disposal group) is recognised at the date of derecognition.

Non-current assets classified as held for sale and the assets of a disposal group classified as held for sale are presented separately from the other assets in the balance sheet.

Discontinued Operations

A discontinued operation is a component of the entity that has been disposed off or is classified as held for sale and that represents a separate major line of business or geographical area of operations, is part of a single co-ordinated plan to dispose of such a line of business or area of operations, or is a subsidiary acquired exclusively with a view to resale. The results of discontinued operations are presented separately in the statement of profit and loss.

See Note 15 - Non-Current Assets or Disposal Group Classified as Held For Sale for further details

I. Impairment of Non-Current Assets

At the end of each reporting period, the Company reviews the carrying amounts of its tangible, intangible and other non-current assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset/cash generating unit is estimated in order to determine the extent of the impairment loss (if any). Recoverable amount is the higher of fair value less cost to sell and Value in use. Where it is not possible to estimate the recoverable amount of an individual asset, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs. Where a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual cash-generating units, or otherwise they are allocated to the group of cash-generating units for which a reasonable and consistent allocation basis can be identified.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised immediately in the statement of profit and loss.

Non-current assets that suffered an impairment are reviewed for possible reversal of the impairment at the end of each reporting period. Where an impairment loss subsequently reverses, the carrying amount of the asset (or cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or cash-generating unit) in prior years. A reversal of an impairment loss is recognised immediately in the statement of profit and loss.

See Note 2 - Property, Plant and Equipment (including ROU Assets) and Capital Work-in-Progress for further details

See Note 4 - Intangible Assets and Intangible Assets under Development for further details

See Note 35 - Impairment Loss on Non-Current Assets for further details

J. Foreign currency Transactions

In preparing the financial statements, transactions in currencies other than the Company's functional currency (foreign currencies) are recognised at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are translated at the rates prevailing at that date. Non-monetary items are measured at historical cost.

Exchange differences on monetary items are recognised in the statement of profit and loss in the period in which they arise, except for:

- eligible exchange differences on foreign currency borrowings relating to qualifying assets under construction are included in the cost of those assets when they are regarded as an adjustment to interest; and
- exchange differences on transactions entered into in order to hedge certain foreign currency risks (see below for hedge accounting policies).

Changes in the fair value of non-monetary equity instruments irrevocably classified as fair value through other comprehensive income includes gain or loss on account of exchange differences.

The fair value of financial liabilities and financial assets denominated in a foreign currency are translated at the spot rate at the end of the reporting period. The foreign exchange component forms part of its fair value gain or loss. Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was measured.

See Note 33 – Finance Cost for further details

See Note 37 – Other Expenses for further details

K. Provisions and contingencies

Provisions are recognized when there is a present obligation (legal or constructive) as a result of a past event and it is probable ("more likely than not") that it is required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the balance sheet date, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the estimated cash flows to settle the present obligation, its carrying amount is the present value of those cash flows. The discount rate used is a pre-tax rate that reflects current market assessments of the time value of money in that jurisdiction and the risks specific to the liability.

Onerous contracts

Present obligations arising under onerous contracts are recognised and measured as provisions. An onerous contract is considered to exist when a contract under which the unavoidable costs of meeting the obligations exce ed the economic benefits expected to be received from it.

Restructurings

A restructuring provision is recognised when there is a detailed formal plan for the restructuring which has raised a valid expectation in those affected that the Company will carry out the restructuring by stating to implement the plan or announcing its main feature to those affected by it. The measurement of a restructuring provision includes only the direct expenditures arising from the restructuring which are both necessarily entailed by the restructuring and not associated with the ongoing activities of the Company.

Restoration (including Mine closure), rehabilitation and decommissioning

Close-down and restoration costs are provided for in the accounting period when the obligation arising from the related disturbance occurs, based on the net present value of the estimated future costs of restoration to be incurred during the life of the mining operation and post closure. Provisions for close-down and restoration costs do not include any additional obligations which are expected to arise from future disturbance.

The initial close-down and restoration provision is capitalised. Subsequent movements in the close-down and restoration provisions for ongoing operations, including those resulting from new disturbance related to expansions or other activities qualifying for capitalisation, updated cost estimates, changes to the estimated lives of operations, changes to the timing of closure activities and revisions to discount rates are also capitalised within "Property, plant and equipment".

Environmental liabilities

Environment liabilities are recognised when the Company becomes obliged, legally or constructively, to rectify environmental damage or perform remediation work.

Litigation

Provision relating to legal, tax and other matters is recognised once it has been established that the Company has a present obligation based on consideration of the information which becomes available up to the date on which the Company's financial statements are approved and may in some cases entail seeking expert advice in making the determination on whether there is a present obligation.

Contingent Liabilities and Assets

A contingent liability is a possible obligation that arises from a past event, with the resolution of the contingency dependent on uncertain future events, or a present obligation where no outflow is probable. Material contingent liabilities are disclosed in the financial statements unless the possibility of an outflow of economic resources is remote. Contingent assets are not recognized in the financial statements unless it is virtually certain that the future event will confirm the asset's existence and the asset will be realised.

Enterprise Social Commitment

Enterprise Social Commitment is the amount to be spent on social and economic development of the surrounding area over a period of time where any new project is set up. Such obligation arises out of conditions mentioned in the Environment Clearance Certificate given by the Government for new projects and are generally defined as a percentage of total project cost. Present value of such future cash flows discounted at appropriate and applicable discount rates are capitalised against the obligation created. Actual cash flows that happen over the period are adjusted against the obligation. The obligation is increased over a period of time and the differential is recognized in the Statement of Profit and Loss as Interest Expense.

Renewable Power Obligation

Provision towards Renewable Power obligation is created to the extent any obligated unit is unable to source renewable energy as a replacement to carbon energy as per requirement of the applicable regulation during the reporting period and is carried in books till the obligation is discharged by purchasing Renewable Energy Certificate from any of the authorised exchanges.

See Note 22 – Provisions for further details

See Note 44 – Contingent Liabilities and Commitments for further details

L. Leases

Company as lessee

The Company assesses whether a contract is or contains a lease, at inception of the contract. The Company recognises a right-of-use asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low value assets. For these leases, the Company recognises the lease payments as an operating expense on a straight-line basis over the lease term, unless another systematic basis is more representative of the time pattern in which economic benefits from the leased assets are consumed. Contingent and variable rentals are recognized as expense in the periods in which they are incurred.

Lease Liability

The lease payments that are not paid at the commencement date are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, which is generally the case for leases in the Company, the lessee's incremental borrowing rate is used, being the rate that the individual lessee would have to pay to borrow the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment with similar terms, security and conditions.

To determine the incremental borrowing rate, the Company uses a build-up approach that starts with a risk-free interest rate adjusted for credit risk and makes adjustments specific to the lease, e.g. term, security etc.

Lease payments included in the measurement of the lease liability comprise:

- Fixed lease payments (including in-substance fixed payments) payable during the lease term and under reasonably certain extension options, less any lease incentives;
- Variable lease payments that depend on an index or rate, initially measured using the index or rate at the commencement date;
- The amount expected to be payable by the lessee under residual value guarantees;
- The exercise price of purchase options, if the lessee is reasonably certain to exercise the options; and
- Payments of penalties for terminating the lease, if the lease term reflects the exercise of an option to terminate the lease.

The lease liability is presented as a separate line in the Standalone Balance Sheet.

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

The Company remeasures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) to reflect any re-assessment, lease modification, or revised in-substance fixed lease payments.

Right of Use (ROU) Assets

The ROU assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement day and any initial direct costs. They are subsequently measured at cost less accumulated depreciation and impairment losses.

Whenever the Company incurs an obligation for costs to dismantle and remove a leased asset, restore the site on which it is located or restore the underlying asset to the condition required by the terms and conditions of the lease, a provision is recognised and measured under Ind AS 37 Provisions, Contingent Liabilities and Contingent Assets. The costs are included in the related right-of-use asset.

For the certain class of assets, the Company allocates lease or non-lease components on the basis of their relative stand-alone prices while assessing a contract at its inception or on reassessment.

The Company applies Ind AS 36- Impairment of Assets to determine whether a right-of-use asset is impaired and accounts for any identified impairment loss as per its accounting policy on 'property, plant and equipment'.

Extension and termination options are included in many of the leases. In determining the lease term the management considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option.

ROU assets are depreciated over the shorter period of the lease term and useful life of the underlying asset. If the Company is reasonably certain to exercise a purchase option, the right-of-use asset is depreciated over the underlying asset's useful life. The depreciation starts at the commencement date of the lease.

Deferred tax on the deductible temporary difference and taxable temporary differences in respect of carrying value of right of use assets and lease liability and their respective tax bases are recognised separately.

The Company as Lessor

The Company enters into lease arrangements as a lessor with respect to some of its investment properties and buildings.

Leases for which the Company is a lessor are classified as finance or operating leases. Whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, the contract is classified as finance lease. All other leases are classified as operating leases.

When the Company is an intermediate lessor, it accounts for the head lease and sublease as two separate contracts. The sublease is classified as finance or operating lease by reference to the right-of-use asset arising from the head lease.

Rental income from operating leases is recognised on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognised on a straight-line basis over the lease term.

Amounts due from lessees under finance leases are recognised as receivables at the amount of the Company's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Company's net investment outstanding in respect of the leases.

When a contract includes lease and non-lease components, the Company applies Ind AS 115, Revenue from Contracts with Customers to allocate the consideration under the contract to each component.

See Note 2 – Property, Plant and Equipment (including Right of Use Assets) for further details

See Note 37 – Other Expenses for further details

M. Inventories

Inventories are stated at the lower of cost and net realizable value. The cost of finished goods and work in progress includes raw materials, direct labour, other direct costs and related production overheads. Costs of inventories include the transfer from equity any gains/losses on qualifying cash flow hedges for purchases of raw materials.

Cost of raw material and Traded Goods comprises of Cost of purchases and also include all other costs incurred in bringing the inventories to their present location and condition and are net of rebates and discounts.

The Inventories are measured at Fair Value only in those cases where the Inventories are designated into a fair value hedge relationship.

Cost is determined using the weighted average cost basis. However, the same cost basis is applied to all inventories of a particular class. Inventories of stores and spare parts are valued at weighted average cost basis after providing for cost of obsolescence and other anticipated losses, wherever considered necessary.

Net realizable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale.

Materials and other supplies held for use in the production of inventories (finished goods, work-in-progress) are not written down below the cost if the finished products in which they will be used are expected to sell at or above the cost.

See Note 11 – Inventories for further details

N. Trade receivables

Trade receivables are amounts due from customers for goods sold or services performed in the ordinary course of business. If the receivable is expected to be collected within a period of 12 months or less from the reporting date (or in the normal operating cycle of the business, if longer), they are classified as Current Assets otherwise as Non-Current Assets.

Trade receivables are measured at their transaction price on initial recognition, unless it contains a significant financing component or pricing adjustments embedded in the contract in which cases, it is recognised at fair value. Trade receivables are held with the objective of collecting the contractual cash flows and therefore are subsequently measured at amortised cost less loss allowance.

Trade receivables which are subject to a factoring arrangement without recourse are de-recognized from the Balance Sheet in its entirety. Under this arrangement, the Company transfers relevant receivables to the factor in exchange for cash and does not retain late payment and credit risk.

Trade receivables which arise from contracts where the sale price is provisional and revenue model have the character of a commodity derivative are measured at fair value. The fair value is measured at forward rate and subsequent changes are recognised as Other Operating Revenue.

See Note 12 – Trade Receivables for further details

O. Trade and other payables

These amounts represent liabilities for goods and services provided to the Company and are unpaid at the end of the financial year. The amounts are unsecured and usually paid within time limits as contracted. Trade and other payables are presented as current liabilities unless the payment is not due within 12 months after the reporting period.

They are recognised initially at their transactional value which represents the fair value and subsequently measured at amortised cost using the effective interest method wherever applicable.

See Note 20 – Trade Payables for further details

P. Financial Instruments

All financial assets are recognised on trade date when the purchase of a financial asset is under a contract whose term requires delivery of the financial asset within the timeframe established by the market concerned. Financial assets are initially measured at fair value, plus transaction costs, except for those financial assets which are classified as at fair value through profit or loss (FVTPL) at inception. All recognised financial assets are subsequently measured in their entirety at either amortised cost or fair value.

Classification of financial assets

Financial assets are classified as 'equity instrument' if it is a non-derivative and meets the definition of 'equity' for the issuer. All other non-derivative financial assets are 'debt instruments'.

Financial assets at amortised cost and the effective interest method

Debt instruments are measured at amortised cost if both of the following conditions are met:

- the asset is held within a business model whose objective is to hold assets in order to collect contractual cash flows; and
- the contractual terms of the instrument give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Debt instruments meeting these criteria are subsequently measured at amortised cost using the effective interest method less any impairment, with interest recognised on an effective yield basis in investment income.

The effective interest method is a method of calculating the amortised cost of a debt instrument and of allocating interest over the relevant period. The effective interest rate is the rate that exactly discounts the estimated future cash receipts (including all fees or and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expe cted life of the debt instrument, or (where appropriate) a shorter period, to the net carrying amount on initial recognition.

The Company may irrevocably elect at initial recognition to classify a debt instrument that meets the amortised cost criteria above as at FVTPL if that designation eliminates or significantly reduces an accounting mismatch had the financial asset been measured at amortised cost.

Financial assets at fair value through other comprehensive income (FVTOCI)

Debt instruments are measured at FVTOCI if both of the following conditions are met:

- the asset is held within a business model whose objective is to hold assets in order to collect contractual cash flows and selling assets; and
- the contractual terms of the instrument give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding

Debt instruments meeting these criteria are subsequently measured at fair value with any gains or losses arising on re-measurement recognised in other comprehensive income, except for impairment gains or losses, interest income and foreign exchange gains or losses which are recognised in profit and loss. Interest calculated using the effective interest method is recognised in the statement of profit and loss in investment income. When the debt instrument is derecognised the cumulative gain or loss previously recognised in other comprehensive income is reclassified to the statement of profit and loss account as a reclassification adjustment.

At initial recognition, an irrevocable election is made (on an instrument-by-instrument basis) to designate investments in equity instruments (other than held for trading purpose) at FVTOCI.

A financial asset is held for trading if:

- it has been acquired principally for the purpose of selling it in the near term; or
- on initial recognition it is part of a portfolio of identified financial instruments that the Company manages together and has evidence of a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated in an effective hedge relationship as a hedging instrument or not a financial guarantee.

Investments in equity instruments at FVTOCI are subsequently measured at fair value with gains and losses arising from changes in fair value recognised in other comprehensive income and accumulated in the 'Gain/ (Loss) on Equity Instruments FVTOCI'. Where the asset is disposed of, the cumulative gain or loss previously accumulated in the 'Gain/ (Loss) on Equity Instruments FVTOCI' is directly reclassified to retained earnings.

For equity instruments measured at fair value through other comprehensive income, no impairments are recognised in the statement of profit and loss.

Dividends on these investments in equity instruments are recognised in the statement of profit and loss in investment income when the Company's right to receive the dividends is established, it is probable that the economic benefits associated with the dividend will flow to the entity; and the amount of the dividend can be measured reliably.

Financial assets at Fair Value through Profit and Loss (FVTPL)

Financial assets that do not meet the criteria of classifying as amortised cost or fair value through other comprehensive income described above, or that meet the criteria but the entity has chosen to designate as at FVTPL at initial recognition, are measured at FVTPL.

Investments in equity instruments are classified as at FVTPL, unless the Company designates an investment that is not held for trading at FVTOCI at initial recognition.

Financial assets at FVTPL are subsequently measured at fair value, with any gains or losses arising on re-measurement recognised in statement of profit and loss. Interest income from these financial assets is included in other income.

Dividend income on investments in equity instruments at FVTPL is recognised in the statement of profit and loss in investment income when the Company's right to receive the dividends is established, it is probable that the economic benefits associated with the dividend will flow to the entity; and the amount of the dividend can be measured reliably.

Impairment of financial assets

On initial recognition of the financial assets, a loss allowance for expected credit loss is recognised for debt instruments carried at amortised cost and FVTOCI. For debt instruments that are measured at FVTOCI, the loss allowance is recognised in the statement of profit and loss.

Expected credit losses of a financial instrument is measured in a way that reflects:

- an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes;
- the time value of money; and
- reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions.

At each reporting date, the Company assesses whether the credit risk on a financial instrument has increased significantly since initial recognition.

When making the assessment, the Company compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition and consider reasonable and supportable information, that is available without undue cost or effort, that is indicative of significant increases in credit risk since initial recognition.

If, at the reporting date, the credit risk on a financial instrument has not increased significantly since initial recognition, the Company measures the loss allowance for that financial instrument at an amount equal to 12-month expected credit losses. If, the credit risk on that financial instrument has increased significantly since initial recognition, the Company measures the loss allowance for a financial instrument at an amount equal to the lifetime expected credit losses.

For Trade Receivables and Contract Assets, the Company applies the simplified approach required by Ind AS 109, which requires expected life time losses to be recognized from initial recognition of the receivables.

The amount of expected credit losses (or reversal) that is required to adjust the loss allowance at the reporting date is recognised as an impairment gain or loss in the statement of profit and loss.

De-recognition of financial assets

The Company derecognises a financial asset on trade date only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity or when it retains contractual rights to retain contractual cash flows from financial assets, but assumes a contractual obligation to pay the cash flows to one or more recipient. If the Company neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Company recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the Company retains substantially all the risks and rewards of ownership of a transferred financial asset, the Company continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

On de-recognition of a financial asset other than in its entirety (e.g. when the Company retains an option to repurchase part of a transferred asset), the Company allocates the previous carrying amount of the financial asset between the part it continues to recognise under continuing involvement, and the part it no longer recognises on the basis of the relative fair values of those parts on the date of the transfer. The difference between the carrying amount allocated to the part that is no longer recognised and the sum of the consideration received for the part no longer recognised and any cumulative gain or loss allocated to it that had been recognised in other comprehensive income is recognised in the statement of profit and loss. Cumulative gain or loss that had been recognised in other comprehensive income is allocated between the part that continues to be recognised and the part that is no longer recognised on the basis of the relative fair values of those parts.

Financial liabilities and equity instruments issued by the Company

Classification as debt or equity

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangement.

Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Company are recognised at the proceeds received, net of direct issue costs.

Compound instruments

The component parts of compound instruments (convertible instruments) issued by the Company are classified separately as financial liabilities and equity in accordance with the substance of the contractual arrangement. At the date of issue, the fair value of the liability component is estimated using the prevailing market interest rate for a similar non-convertible instrument. This amount is recorded as a liability on an amortised cost basis using the effective interest method until extinguished upon conversion or at the instrument's maturity date. The equity component is determined by deducting the amount of the liability component from the fair value of the compound instrument as a whole. This is recognised and included in equity, net of income tax effects, and is not subsequently re-measured.

Financial guarantee contract liabilities

Financial guarantee contract liabilities are initially measured at their fair values and, if not designated as at FVTPL, are subsequently measured at the higher of:

- the amount of loss allowance is determined by using expected credit loss model as per Ind AS 109; and
- the amount initially recognised less, where appropriate, cumulative amount of income recognised in accordance with the revenue recognition policies.

Financial liabilities

Financial liabilities are classified as either financial liabilities 'at FVTPL' or 'other financial liabilities'.

Financial liabilities at FVTPL

Financial liabilities are classified as at FVTPL when the financial liability is either held for trading or it is designated as at FVTPL.

A financial liability is classified as held for trading if:

- it has been acquired or incurred principally for the purpose of repurchasing it in the near term; or
- on initial recognition it is part of a portfolio of identified financial instruments that the Company manages together and for which there is evidence of a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

A financial liability other than a financial liability held for trading may also be designated as at FVTPL upon initial recognition if:

- such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise; or
- the financial liability forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Company's documented risk management or investment strategy, and information about the Company is provided internally on that basis; or
- it forms part of a contract containing one or more embedded derivatives, and Ind-AS 109 Financial Instruments permits the entire combined contract to be designated as at FVTPL.

Financial liabilities at FVTPL are stated at fair value, with any gains or losses arising on re-measurement recognised in the statement of profit and loss, except for the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability which is recognised in other comprehensive income.

The net gain or loss recognised in the statement of profit and loss incorporates any interest paid on the financial liability.

Other financial liabilities

Other financial liabilities, including borrowings, are initially measured at fair value, net of transaction costs.

Other financial liabilities are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis.

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or (where appropriate) a shorter period, to the net carrying amount on initial recognition.

Offsetting financial instruments

Financial assets and liabilities are offset and the net amount is reported in the balance sheet when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the Company or the counterparty.

See Note 18A and 18B – Borrowings for further details.

See Note 27 – Other Income for further details.

See Note 36 – Impairment Loss/ (Reversal) on Financial Assets (Net) for further details

See Note 46 – Offsetting Financial Liabilities and Financial Assets for further details

See Note 47 – Financial Instruments for further details

See Note 48 – Financial Risk Management for further details

Q. Derivatives and hedge accounting

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently re-measured at their fair value at the end of each reporting date. The method of recognising the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged.

The Company has a policy to designate certain derivatives as either:

(a) hedges of the fair value of recognised assets or liabilities or a firm commitment (fair value hedge);

(b) hedges of a particular risk associated with the cash flow of recognised assets or liabilities or a highly probable forecast transaction (cash flow hedge); or

The Company documents at the inception of the transaction the relationship between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking various hedging transactions. The Company also documents the nature of the risk being hedged and how the Company will assess whether the hedging relationship meets the hedge effectiveness requirements (including its analysis of the sources of hedge ineffectiveness and how it determines the hedge ratio).

Change in Fair value of derivatives that are not designated in any hedge relationship as mentioned above are accounted through the Statement of Profit and Loss at each reporting date.

The Company also identifies embedded derivatives in certain transactions. These derivatives are generally segregated from the host transactions and accounted for separately. These derivatives are designated into a hedge relationship if they meet hedge accounting criteria. Change in Fair Value of such embedded derivatives are accounted in Other Comprehensive Income if they are designated in a cash flow hedge relationship. Fair Value change of all other embedded derivatives including those that are not designated in any hedge relationship are accounted through the Statement of Profit and Loss.

The full fair value of a hedging derivative is classified as a non-current asset or liability when the residual maturity of the derivative is more than 12 months and as a current asset or liability when the residual maturity of the derivative is less than 12 months.

Fair value hedge

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in the statement of profit and loss, together with any changes in the fair value of the hedged item that are attributable to the hedged risk.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated, or exercised, or when it no longer qualifies for hedge accounting. The fair value adjustment to the carrying amount of the hedged item arising from the hedged risk is amortised to the statement of profit and loss from that date except for inventory that is charged to statement of profit and loss on sale of goods.

Cash flow hedges

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in other comprehensive income and accumulated under the heading cash flow hedging reserve within equity. The gain or loss relating to the ineffective portion is recognised immediately in the statement of profit and loss, and is included in the '(Gain) / Loss in Fair Value of Derivatives' line item.

Amounts previously recognised in other comprehensive income and accumulated in equity are reclassified to the statement of profit and loss in the periods when the hedged item affects the statement of profit and loss, in the same line as the recognised hedged item. However, when the hedged forecast transaction results in the recognition of a non-financial asset or a non-financial liability, the gains and losses previously recognised in other comprehensive income and accumulated in equity are transferred from equity and included in the initial measurement of the cost of the non-financial asset or non-financial liability as a basis adjustment.

If the hedge ratio for risk management purposes in no longer optimal but the risk management objective remains unchanged and the hedge continues to qualify for hedge accounting, the hedge relationship will be rebalanced by adjusting either the volume of the hedging instrument or the volume of the hedged item so that the hedge ratio aligns with the ratio used for risk management purposes. Any hedge ineffectiveness is calculated and accounted for in the statement of profit and loss at the time of the hedge relationship rebalancing.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated, or exercised, or when it no longer qualifies for hedge accounting. Any gain or loss recognised in other comprehensive income and accumulated in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in the statement of profit and loss. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognised immediately in the statement of profit and loss.

See Note 49 – Derivatives Financial Instruments for further details

R. Cash and cash equivalents

Cash and cash equivalents comprise of cash at bank and in hand, short-term deposits and short term highly liquid investments with an original maturity of three months or less that are readily convertible to known amounts of cash and are subject to insignificant risk of changes in value

For the purposes of the Cash Flow Statement, cash and cash equivalents is as defined above, net of outstanding bank overdrafts which are integral part of Cash management activities. In the balance sheet, bank overdrafts are shown within borrowings in current liabilities.

See Note 13 – Cash and Cash Equivalents for further details

S. Borrowing cost

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale. The Company considers a period of twelve months or more as a substantial period of time. Qualifying assets are assets that necessarily take a substantial period of time to get ready for their intended use or sale.

Transaction costs in respect of long-term borrowings are amortised over the tenor of respective loans using effective interest method. All other borrowing costs are expensed in the period in which they are incurred.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization.

See Note 33 – Finance Costs for further details

T. Accounting for government grants

Government grants are recognized when there is reasonable assurance that we will comply with the conditions attached to them and that the grants will be received.

Government grants are recognised in the statement of profit and loss on a systematic basis over the periods in which the Company recognises as expenses the related costs for which the grants are intended to compensate. Government grants whose primary condition is that the Company should purchase, construct or otherwise acquire non-current assets are recognized in the balance sheet by setting up the grant as deferred income and its amortization is recognized in 'Other Income' on straight line basis over expected useful lives of related assets.

Other government grants (grants related to income) are recognized as income over the periods necessary to match them with the costs for which they are intended to compensate, on a systematic basis. Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of providing immediate financial support with no future related costs are recognized in the statement of profit and loss in the period in which they become receivable.

Grants related to income are presented under 'Other Income' or 'Other Operating Revenue' in the statement of profit and loss depending upon the nature of the underlying grant, except for grants received in the form of rebate or exemptions related to expenditures, which are deducted in reporting the related expense.

The benefit of a government loan at a below-market rate of interest is treated as a government grant, measured as the difference between proceeds received and the fair value of the loan based on prevailing market interest rates.

See Note 26 – Revenue from Operations for further details

See Note 27 – Other Income for further details

U. Employee Benefits

Retirement benefit and termination benefits

A defined contribution plan is a pension plan under which the Company pays fixed contributions into a separate entity. The Company has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. Payments to defined contribution retirement benefit plans are recognised as an expense when employees have rendered service entitling them to the contributions.

For defined benefit retirement and medical plans, the cost of providing benefits is determined using the projected unit credit method, with actuarial valuations being carried out at the end of each annual reporting period. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using market yields of government bonds having terms approximating to the terms of related obligation.

Re-measurement, comprising of actuarial gains and losses, the effect of the changes to the asset ceiling (if applicable) and the return on plan assets (excluding interest), is reflected in the balance sheet with a charge or credit recognised in other comprehensive income in the period in which they occur. Re-measurement recognised in other comprehensive income is reflected immediately in retained earnings and will not be reclassified to the statement of profit and loss. Past service cost is recognised in the statement of profit and loss in the period of a plan amendment. Net interest is calculated by applying the discount rate at the beginning of the period to the net defined benefit liability or asset. Defined benefit costs are categorised as follows:

- service cost (including current service cost, past service cost, as well as gains and losses on curtailments and settlements);
- net interest expense or income; and
- re-measurements

The Company presents the first two components of defined benefit costs in the statement of profit and loss in the line item employee benefits expense. Curtailment gains and losses are accounted for as past service costs.

The retirement benefit obligation recognised in the balance sheet represents the actual deficit or surplus in the Company's defined benefit plans. Any surplus resulting from this calculation is limited to the present value of any economic benefits available in the form of refunds from the plans or reductions in future contributions to the plans.

A liability for a termination benefit is recognised at the earlier of when the entity can no longer withdraw the offer of the termination benefit or when the entity recognises any related restructuring costs which involves the payment of terminations benefits.

In the case of an offer made to encourage voluntary redundancy, the termination benefits are measured based on the number of employees expected to accept the offer. Benefits falling due more than 12 months after the end of the reporting period are discounted to their present value.

Short-term and other long-term employee benefits

A liability is recognised for benefits accruing to employees in respect of wages and salaries in the period the related service is rendered at the undiscounted amount of the benefits expected to be paid in exchange for that service.

Liabilities recognised in respect of short-term employee benefits are measured at the undiscounted amount of the benefits expected to be paid in exchange for the related service.

Liabilities recognised in respect of other long-term employee benefits such as annual leave and sick leave are measured at the present value of the estimated future cash outflows expected to be made by the Company in respect of services provided by employees up to the reporting date. The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as used for defined benefit retirement plans. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to the statement of profit and loss in the period in which they arise. These obligations are valued annually by independent qualified actuaries.

See Note 31 – Employee Benefits for further details

V. Employee Share-based Payments

Equity-settled share-based payments to employees are measured at the fair value of the options at the grant date.

The fair value of option at the grant date is expensed over the respective vesting period in which all of the specified vesting conditions are to be satisfied with a corresponding increase in equity as "Employee Stock Options Account". In case of forfeiture of unvested option, portion of amount already expensed is reversed. In a situation where the vested option forfeited or expires unexercised, the related balance standing to the credit of the "Employee Stock Options Account" are transferred to the "Retained Earnings".

When the options are exercised, the Company issues new equity shares of the Company of ₹ 1/- each fully paid-up. The proceeds received and the related balance standing to credit of the Employee Stock Options Account, are credited to share capital (nominal value) and Securities Premium Account.

Share appreciation rights which are cash settled, are recognised as employee benefit expense over the relevant service period. The liability is fair valued at each reporting date and are presented as employee benefit obligations in the balance sheet.

See Note 42 – Employee Share-based Payments for further details

W. Income Taxes

Income tax expense represents the sum of the tax currently payable and deferred tax.

Current tax

The tax currently payable is based on taxable profit for the year. Taxable profit differs from 'profit before tax' as reported in the statement of profit and loss because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date.

Deferred tax

Deferred tax is recognised on differences between the carrying amounts of assets and liabilities in the balance sheet and the corresponding tax bases used in the computation of taxable profit.

Deferred tax liabilities are generally recognised for all taxable temporary differences.

Deferred tax assets are generally recognised for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from initial recognition of goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that at the time of transaction affects neither the taxable profit nor the accounting profit.

The carrying amount of deferred tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset realised, based on tax rates (and tax laws) that have been enacted or substantively enacted by the balance sheet date. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Company expects, at the reporting date, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off when they relate to income taxes levied by the same taxation authority. Current tax assets and tax liabilities are offset where the Company has a legally enforceable right to offset and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

Minimum Alternative Tax (MAT) is recognized as an asset only when and to the extent there is convincing evidence that the Company will pay normal income tax during the specified period. In the year in which the MAT credit becomes eligible to be recognized as an asset, the said asset is created by way of credit to the statement of profit and loss and included in deferred tax assets. The Company reviews the same at each balance sheet date and writes down the carrying amount of MAT entitlement to the extent there is no longer convincing evidence to the effect that Company will pay normal income tax during the specified period.

Current and deferred tax for the period

Current and deferred tax are recognised in the statement of profit and loss, except when they relate to items that are recognised in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognised in other comprehensive income or directly in equity, respectively. Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation and considers whether it is probable that the taxation authority will accept tax position taken by the Company. Uncertain tax positions are reflected in the overall measurement of the Company's tax expense and are based on the most likely amount or the expected value arrived at by the Company which provides a better prediction of the resolution of uncertainty. Uncertain tax positions are monitored and updated as and when new information becomes available, typically upon examination or action by the taxing authorities or through statute expiration and judicial precedent.

The Company considers when a particular amount payable for interest and penalties on income taxes is determined to be within the scope of Ind AS 37, it is presented as part of financing cost or other expenses, respectively unless when there is an overall settlement with tax authority and the interest and penalties cannot be identified separately in which case it is determined to be part of income taxes and accounted under Ind AS 12.

See Note 23 – Income Taxes for further details

X. Revenue recognition

The Company derives revenue principally from sale of hydrate, speciality alumina, aluminium and aluminium value added products, di-ammonium phosphate, copper, precious metals (gold and silver) and other materials.

The Company recognizes revenue when it satisfies a performance obligation in accordance with the contract with the customer. This is achieved when control of the product has been transferred to the customer, which is generally determined when legal title, physical possession, risk of obsolescence, loss and rewards of ownership pass to the customer and the Company has the present right to payment, all of which occurs at a point in time upon shipment or delivery of the product. The Company considers shipping and handling activities as costs to fulfil the promise to transfer the related products and the customer payments for shipping and handling costs are recorded as a component of revenue.

In situations where revenue is recognized on shipment of goods, shipping and handling services are treated as a distinct separate performance obligation and the Company recognises revenue for such services when the performance obligation is completed.

The Company considers the terms of the contract in determining the transaction price. The transaction price is based upon the amount the Company expects to be entitled to in exchange for transferring of promised goods and services to the customer after deducting incentive programs, including but not limited to discounts, volume rebates etc. Transaction price excludes taxes and duties collected on behalf of the government.

For incentives offered to customers, the Company makes estimates related to customer performance and sales volume to determine the total amounts earned and to be recorded as deductions from "Revenue from contracts with customers". In making these estimates, the Company considers historical results that have a predictive value of the amount that the Company expects to be entitled to for the transferred goods and services. If historical results have limited predictive value or the Company has limited experience with similar types of incentives, the estimate is made in such a manner, which ensures that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur. The actual amounts may differ from these estimates and are accounted for prospectively. No element of significant financing is deemed present as the sales are made with a credit term, which is consistent with market practice. The Company's obligation to repair or replace faulty products under the standard warranty terms is recognised as a cost with a corresponding provision.

For certain customer contracts, final prices are determined based on the underlying market index of commodity prices at a future date, for example prices on the London Metal Exchange Limited (LME) or London Bullion Markets Association (LBMA). In such contracts, the Company records revenue on a provisional basis considering current market price when control is transferred to the customer. At the end of each period, prior to final settlement date, adjustments are made to the provisional sale price based on movements in the underlying market index of commodity prices up to the date of final price determination. Such variable price movement is accounted as 'Other Operating Revenue'.

Revenue from irrevocable bill and hold/ holding certificate contracts is recognised when it is probable that delivery will be made, goods have been identified and kept separately, are ready for delivery in the present condition and the Company does not have the ability to use the product or to direct it to another customer. Under these arrangements, revenue is recognised once legal title has passed and control of the asset sold is transferred to the customer.

Export incentives and subsidies are recognized when there is reasonable assurance that the Company will comply with the conditions and the incentive will be received.

Claim on insurance companies, railway authorities and others are accounted for on acceptance basis.

Revenue excludes any taxes and duties collected on behalf of the government.

Contract liability

Contract liability is recognised when a payment for customer is already received before a related performance obligation is satisfied. If a customer pays consideration before the Company transfers goods or services to the customer, a contract liability is recognised when the payment is received.

As these are contracts that the Company expects, and has the ability, to fulfil through delivery of a non-financial item, these are presented as advance from customers and are recognised as revenue as and when control of respective commodities is transferred or service is provided to the customers under the agreements. The portion of the advance where either the Company does not have a unilateral right to defer settlement beyond twelve months or expects settlement within twelve months from the balance sheet date is classified as a current liability.

See Note 24 – Contract Liabilities for further details

See Note 26 – Revenue from Operations for further details

Y. Dividend and Interest Income

Dividend income from investments is recognised when the shareholder's right to receive payment has been established.

Interest income from a financial asset is recognised when it is probable that the economic benefits will flow to the Company and the amount of income can be measured reliably. Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

See Note 27 – Other Income for further details

Z. Exceptional items

Exceptional items include income or expense that are considered to be part of ordinary activities, however are of such significance and nature that separate disclosure enables the user of the financial statements to understand the impact in a more meaningful manner. Exceptional items are identified by virtue of their size, nature and incidence.

See Note 38 – Exceptional Income/ (Expenses) (Net) for further details

1C. Measurement of fair value

a. Financial instruments

The estimated fair value of the Company's financial instruments is based on market prices and valuation techniques. Valuations are made with the objective to include relevant factors that market participants would consider in setting a price, and to apply accepted economic and financial methodologies for the pricing of financial instruments. References for less active markets are carefully reviewed to establish relevant and comparable data.

b. Marketable and non-marketable equity securities

Fair value for listed shares is based on quoted market prices as of the reporting date. Fair value for unlisted shares is calculated based on commonly accepted valuation techniques utilizing significant unobservable data, primarily cash flow based models.

c. Derivatives

Fair value of financial derivatives is estimated as the present value of future cash flows, calculated by reference to quoted price curves and exchange rates as of the balance sheet date. Options are valued using appropriate option pricing models and credit spreads are applied where deemed to be significant.

d. Embedded derivatives

Embedded derivatives that are separated from the host contract are valued by comparing the forward curve at contract inception to the forward curve as of the balance sheet date. Changes in the present value of the cash flows related to the embedded derivative are recognized in the balance sheet and in the income statement.

1D. Critical accounting judgment and key sources of estimation uncertainty

In preparing the financial statements in conformity with accounting principles generally accepted in India, management is required to make estimates and assumptions that affect reported amounts of assets and liabilities and the disclosure of contingent liabilities as at the date of the financial statements and the amounts of revenue and expenses during the reported period. Actual results could differ from those estimates. Any revision to such estimates is recognised in the period in which the same is determined.

The following paragraphs explains areas that are considered more critical, involving a higher degree of judgment and complexity.

a. Impairment of non-current assets

Ind AS 36 requires that the Company assesses conditions that could cause an asset or a Cash Generating Unit (CGU) to become impaired and to test recoverability of potentially impaired assets. These conditions include changes resulting from market and economic environment, including internal and external factors such as the Company's market capitalization, significant changes in the Company's planned use of the assets or a significant adverse change in the expected prices, sales volumes or raw material cost. The identification of CGUs involves judgment, including assessment of where active markets exist, and the level of interdependency of cash inflows. CGU is usually the individual plant, unless the asset or asset Company is an integral part of a value chain where no independent prices for the intermediate products exist, a Company of plants is combined and managed to serve a common market, or where circumstances otherwise indicate significant interdependencies.

In accordance with Ind-AS 36, certain intangible assets are reviewed at least annually for impairment. If a loss in value is indicated, the recoverable amount is estimated as the higher of the CGU's fair value less cost to sell, or its value in use. Directly observable market prices rarely exist for the Company's assets, however, fair value may be estimated based on recent transactions on comparable assets, internal models used by the Company for transactions involving the same type of assets or other relevant information. Calculation of value in use is a discounted cash flow calculation based on continued use of the assets in its present condition, excluding potential exploitation of improvement or expansion potential.

Determination of the recoverable amount involves management estimates on highly uncertain matters, such as commodity prices and their impact on markets and prices for upgraded products, development in demand, inflation, currency rate movements, input cost prices, operating expenses and tax and legal environment. The Company uses internal business plans, quoted market prices and the Company's best estimate of commodity prices, currency rates, discount rates and other relevant information. A detailed forecast is developed for a period of three to five years with projections thereafter.

b. Employee retirement plans

The Company provides both defined benefit employee retirement plans and defined contribution plans. Measurement of pension and other superannuation costs and obligations under such plans require numerous assumptions and estimates that can have a significant impact on the recognized costs and obligation, such as future salary level, discount rate, attrition rate and mortality.

The Company provides defined benefit plans to its employees. The discount rate is based on Government bond yield. Assumptions for salary increase in the remaining service period for active plan participants are based on expected salary increase in India. Changes in these assumptions can influence the net asset or liability for the plan as well as the pension cost, refer note 43.

c. Environmental liabilities and Asset Retirement Obligation (ARO)

Estimation of environmental liabilities and ARO require interpretation of scientific and legal data, in addition to assumptions about probability and future costs, refer note 22.

d. Taxes

The Company calculates income tax expense based on reported income. Deferred income tax expense is calculated based on the differences between the carrying value of assets and liabilities for financial reporting purposes and their respective tax basis that are considered temporary in nature. Valuation of deferred tax assets is dependent on management's assessment of future recoverability of the deferred tax benefit. Expected recoverability may result from expected taxable income in the future, planned transactions or planned tax optimizing measures. Economic conditions may change and lead to a different conclusion regarding recoverability, refer notes 25. For judgements related to adoption of lower tax rate as per Section 115BBA of the Income tax Act, refer note 23.

e. Extension and termination option in a Lease

Extension and termination options are included in many of the leases. In determining the lease term, the Management considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option. This assessment is reviewed if a significant event or a significant change in circumstances occurs which affects this assessment and that is within the control of the Group.

f. Useful lives of depreciable/ amortisable assets (tangible and intangible)

Management reviews its estimate of the useful lives of depreciable/ amortisable assets at each reporting date, based on the expected utility of the assets. Uncertainties in these estimates relate to technical and economic obsolescence that may change the utility of certain software, IT equipment and other plant and equipment.

g. Recoverability of advances/ receivables

At each balance sheet date, based on discussions with the respective counter-parties and internal assessment of their credit worthiness, the management assesses the recoverability of outstanding receivables and advances. Such assessment requires significant management judgement based on financial position of the counter-parties, market information and other relevant factors.

h. Fair value measurements

The Company applies valuation techniques to determine the fair value of financial instruments (where active market quotes are not available) and non-financial assets. This involves developing estimates and assumptions consistent with the market participants to price the instrument. The Company's assumptions are based on observable data as far as possible, otherwise on the best information available. Estimated fair values may vary from the actual prices that would be achieved in an arm's length transaction at the reporting date, refer note 47.

i. Contingent assets and liabilities, provisions and uncertain tax positions

There are various legal, direct and indirect tax matters and other obligations including environmental, mining, local and state levies, income tax holiday, availing input tax credits etc., which may impact the Company. Evaluation of uncertain liabilities and contingent liabilities and assets arising out of above matters require management judgment and assumptions, regarding the probability outflow or realization of economic resources and the timing and amount, or range of amounts, that may ultimately be determined. Such estimates may vary from the ultimate outcome as a result of differing interpretations of laws and facts, or application of relevant judicial precedents, refer notes 22, 23 and 44.

j. Inventory Measurement

Measurement of bulk inventory quantities (such as coal, bauxite, copper concentrates, etc.) lying at yards and work in progress of precious metals at smelter and refinery is material, complex and involves significant judgement and estimate resulting from measuring the surface area, dip measurement of materials in tanks/silos, etc., refer note 11.

The Company performs physical counts of above inventory on a periodic basis using internal / external experts to perform volumetric surveys and assessments, basis which the estimate of quantity for these inventories is determined. The variations noted between book records and physical quantities of above inventories are evaluated and appropriately accounted in the books of accounts.

1E. Recent Accounting Pronouncements

i) New and amended standards adopted by the Company

The Company has applied the following amendments to Ind AS for the first time for their annual reporting period commencing 1 April 2020:

- **Definition of Material – amendments to Ind AS 1 and Ind AS 8**

  Amendments are made to Ind AS 1- Presentation of Financial Statements and Ind AS 8 - Accounting Policies, Changes in Accounting Estimates and Errors, which use a consistent definition of materiality, clarify when information is material and incorporate some of the guidance in Ind AS 1 about immaterial information.

  In particular, the amendments clarify:

  – that the reference to obscuring information addresses situations in which the effect is similar to omitting or misstating that information, and that an entity assesses materiality in the context of the financial statements as a whole, and

  – the meaning of 'primary users of general purpose financial statements' to whom those financial statements are directed, by defining them as 'existing and potential investors, lenders and other creditors' that must rely on general purpose financial statements for much of the financial information they need.

- **Definition of a Business – amendments to Ind AS 103**

  The amended definition of a business requires an acquisition to include an input and a substantive process that together significantly contribute to the ability to create outputs. The definition of the term 'outputs' is amended to focus on goods and services provided to customers, generating investment income and other income, and it excludes returns in the form of lower costs and other economic benefits.

- **COVID-19 related concessions – amendments to Ind AS 116**

  Amendments to Ind AS 116 Leases, provides a practical expedient to apply rent concessions occurring as a direct consequence of the COVID-19 pandemic. Lessee that makes this election shall account for any change in lease payments resulting from the rent concession the same way it would account for the change applying this Standard if the change were not a lease modification.

- **Interest Rate Benchmark Reform – amendments to Ind AS 109 and Ind AS 107**

  The amendments made to Ind AS 109 Financial Instruments, and Ind AS 107 Financial

Instruments: Disclosures provide certain reliefs in relation to interest rate benchmark reform. The reliefs relate to hedge accounting and have the effect that the reforms should not generally cause hedge accounting to terminate. However, any hedge ineffectiveness should continue to be recorded in the income statement.

The amendments listed above did not have any material impact on Company's financial statements.

ii) Amended applicable from next Financial year

On March 24, 2021, the Ministry of Corporate Affairs ("MCA") through a notification, amended Schedule III of the Companies Act, 2013. The amendments revise Division I, II and III of Schedule III and are applicable from April 1, 2021. Key amendments relating to Division II which relate to companies whose financial statements are required to comply with Companies (Indian Accounting Standards) Rules 2015 are:

Balance Sheet:

- Lease liabilities should be separately disclosed under the head 'financial liabilities', duly distinguished as current or non-current.
- Certain additional disclosures in the statement of changes in equity such as changes in equity share capital due to prior period errors and restated balances at the beginning of the current reporting period.
- Specified format for disclosure of shareholding of promoters.
- Specified format for ageing schedule of trade receivables, trade payables, capital work-in-progress and intangible asset under development.
- If a company has not used funds for the specific purpose for which it was borrowed from banks and financial institutions, then disclosure of details of where it has been used.
- Specific disclosure under 'additional regulatory requirement' such as compliance with approved schemes of arrangements, compliance with number of layers of companies, title deeds of immovable property not held in name of company, loans and advances to promoters, directors, key managerial personnel (KMP) and related parties, details of benami property held, certain specified ratios etc.

Statement of profit and loss:

- Additional disclosures relating to Corporate Social Responsibility (CSR), undisclosed income and crypto or virtual currency specified under the head 'additional information' in the notes forming part of the standalone financial statements.

The amendments are extensive and the Company will evaluate the same to give effect to them as required by law.

2. Property, Plant and Equipment (including Right of Use Assets) and Capital Work-in-Progress

Refer Note 1B (D) for accounting policy on Property, Plant and Equipment
Refer Note 1B (L) for accounting policy on Leases
Refer Note 1B (I) for accounting policy on Impairment of Non-Current Assets

A. Property, Plant and Equipment and Capital Work-in-Progress

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Property, Plant and Equipment - Cost	49,291	48,614
Less: Accumulated Depreciation and Impairment	(18,056)	(16,447)
Net Carrying amount of Property, Plant and Equipment	**31,235**	**32,167**
Capital Work-in-Progress (e)	**1,587**	**1,209**

(₹ in Crore)

Particulars	ORIGINAL COST				ACCUMULATED DEPRECIATION				ACCUMULATED IMPAIRMENT				NET CARRYING AMOUNT	
	As at April 01, 2020	Additions	Disposal/ Adjust-ments	As at March 31, 2021	As at April 01, 2020	Additions	Disposal/ Adjust-ments	As at March 31, 2021	As at April 01, 2020	Recognised/ (Reversed)	Disposal/ Adjust-ments	As at March 31, 2021	As at March 31, 2021	As at March 31, 2020
Freehold Land	598	5	8	611	8	4	2	14	-	-	1	1	596	590
Buildings	8,036	110	32	8,178	1,919	275	16	2,210	59	23	4	86	5,882	6,058
Plant and Machinery	38,526	559	(84)	39,001	13,072	1,222	(65)	14,229	638	48	3	689	24,083	24,816
Vehicles and Aircraft	440	16	(9)	447	220	26	(4)	242	-	-	-	-	205	220
Railway Wagons	189	-	-	189	93	10	-	103	-	-	-	-	86	96
Railway Sidings	489	7	-	496	176	28	-	204	17	-	-	17	275	296
Furniture and Fixtures	136	19	(3)	152	97	6	(2)	101	1	-	-	1	50	38
Office Equipment	200	24	(7)	217	146	19	(7)	158	1	-	-	1	58	53
Total	**48,614**	**740**	**(63)**	**49,291**	**15,731**	**1,590**	**(60)**	**17,261**	**716**	**71**	**8**	**795**	**31,235**	**32,167**

(₹ in Crore)

Particulars	ORIGINAL COST				ACCUMULATED DEPRECIATION				ACCUMULATED IMPAIRMENT				NET CARRYING AMOUNT	
	As at April 01, 2019	Additions	Disposal/ Adjust-ments	As at March 31, 2020	As at April 01, 2019	Additions	Disposal/ Adjust-ments	As at March 31, 2020	As at April 01, 2019	Recognised/ (Reversal)	Disposal/ Adjust-ments	As at March 31, 2020	As at March 31, 2020	As at March 31, 2019
Freehold Land	579	19	-	598	4	4	-	8	-	-	-	-	590	575
Buildings	7,889	153	(6)	8,036	1,639	284	(4)	1,919	59	-	-	59	6,058	6,191
Plant and Machinery	38,432	454	(360)	38,526	12,032	1,211	(171)	13,072	634	-	4	638	24,816	25,766
Vehicles and Aircraft	421	28	(9)	440	201	24	(5)	220	-	-	-	-	220	220
Railway Wagons	-	-	189	189	-	9	84	93	-	-	-	-	96	-
Railway Sidings	489	1	(1)	489	149	27	-	176	17	-	-	17	296	323
Furniture and Fixtures	128	9	(1)	136	91	7	(1)	97	1	-	-	1	38	36
Office Equipment	179	31	(10)	200	139	17	(10)	146	1	-	-	1	53	39
Total	**48,117**	**695**	**(198)**	**48,614**	**14,255**	**1,583**	**(107)**	**15,731**	**712**	**-**	**4**	**716**	**32,167**	**33,150**

(a) Assets for which registration is pending

Freehold Land - Original Cost ₹ 31 Crore (as at 31/03/2020 ₹ 31 Crore). Carrying Amount ₹ 28 Crore (as at 31/03/2020 ₹ 29 Crore).

(b) The Company's share in Jointly owned assets has been grouped together with the relevant class of Property, Plant and Equipment. The proportion of the Original Cost and Carrying amount included in relevant class of assets are given below:

(₹ in Crore)

	31/03/2021		31/03/2020	
	Original Cost	Net Carrying Amount	Original Cost	Net Carrying Amount
Freehold Land	52	52	52	52
Buildings	50	37	41	29
Plant and Machinery	41	2	41	2
Furniture & Fixtures	14	10	4	-
Vehicles and Aircraft	-	-	-	-
Office Equipment	9	2	6	1

(c) Assets pledged and Hypothecated against borrowings:

i All the moveable and immoveable items of Property, Plant and Equipment of Mahan Aluminium, both present and future, carrying value ₹ 11,609 Crore (as at 31/03/2020 ₹ 11,976 Crore) are given as security towards first ranking charge against the rupee term loans from banks of ₹ 2942 Crore (gross) (as at 31/03/2020 ₹ 2,948 Crore). All the moveable items of Property, Plant and Equipment of Mahan Aluminium, both present and future are given as first pari passu charge against the foreign currency term loan from bank of ₹ 460 Crore (gross) (as at 31/03/2020 ₹ 473 Crore), refer note - 18A (b).

ii All the moveable and immovable items of Property, Plant and Equipment of Aditya Aluminium both present and future, carrying value of ₹ 12,029 Crore (as at 31/03/2020 ₹ 12,397 Crore) are given as security towards charge against the rupee term loan from bank of ₹ 6299 Crore (gross) (as at 31/03/2020 ₹ 6,299 Crore), refer note - 18A (b).

iii All moveable items of Property, Plant and Equipment both present and future (except moveable items of Mahan Aluminium, Aditya Aluminium, Kalwa Plant, current assets of the Company) and certain immoveable properties of the Company are given as security towards Non-Convertible Debentures of ₹ 6,000 Crore (as at 31/03/2020 ₹ 6,000 Crore), refer note - 18A (a).

(d) For capital expenditures contracted but not incurred, refer note 44B.

(e) Capital Work-in-Progress comprise of various projects and expansions spread over all units. Many of these projects will be capitalized during the year ending March 31, 2022. The Company has tested the carrying value of Capital Work-in-Progress for impairment as at reporting date.

Major Capital Work-in-Progress are related to following divisions:

(₹ in Crore)

Divisions	31/03/2021	31/03/2020
Aluminium	1,189	970
Copper	293	130
Corporate	105	109
Total	**1,587**	**1,209**

(f)

Items of Property, Plant and Equipment	Useful Life (Years)
Freehold land	Infinite ^
Buildings	30-60
Plant and Machinery	15-40
Vehicles and Aircraft	8 to 20
Railway Wagons	15
Railway Sidings	15
Furniture & Fixtures	8 to 10
Office Equipment	3 to 6

^ Freehold land used for mining is depreciated over 8 - 30 years.

(h) Residual values and useful live of Property, Plant and Equipment are reviewed, and adjusted if appropriate, at the end of each reporting period.

(j) During the year, the Company has impaired the certain mining related Property, Plant and Equipment, refer note 35 for further details.

(k) During the year, the Company has reclassified certain assets which were kept as Assets of Disposal Group held for Sale to Property, Plant and equipment presented in "Disposal/ adjustment" column, refer note 15 for further details.

B Right of Use Assets

The Company leases many assets including Land, Buildings, Plant and Machinery, Vehicles, Railway Wagons, Railway Sidings, Furniture etc. These right of use assets are presented as part of 'Property, Plant and Equipment' under Non-Current assets on the face of the Balance Sheet.

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Right of Use Assets	999	989
Less: Accumulated Depreciation and Impairment	(173)	(111)
Net Carrying amount of Right of Use Assets	**826**	**878**

(₹ in Crore)

Particulars	ORIGINAL COST				ACCUMULATED DEPRECIATION				ACCUMULATED IMPAIRMENT				NET CARRYING AMOUNT	
	As at April 01, 2020	Additions	Disposal/ Adjust-ments	As at March 31, 2021	As at April 01, 2020	Additions	Disposal/ Adjust-ments	As at March 31, 2021	As at April 01, 2020	Recognised/ (Reversed)	Deduction/ Adjust-ments	As at March 31, 2021	As at March 31, 2021	As at March 31, 2020
Leasehold Land	750	4	6	760	19	28	7	54	-	-	-	-	706	731
Buildings	84	9	(9)	84	25	27	(8)	44	-	-	-	-	40	59
Plant and Machinery	61	4	18	83	43	12	(5)	50	-	-	-	-	33	18
Vehicles and Aircraft	22	-	(3)	19	6	7	(3)	10	-	-	-	-	9	16
Railway Wagons	41	-	-	41	4	4	-	8	-	-	-	-	33	37
Railway Sidings	21	-	(19)	2	9	-	(9)	-	-	-	-	-	2	12
Furniture and Fixtures	10	-	-	10	5	2	-	7	-	-	-	-	3	5
Total	**989**	**17**	**(7)**	**999**	**111**	**80**	**(18)**	**173**	**-**	**-**	**-**	**-**	**826**	**878**

(₹ in Crore)

Particulars	ORIGINAL COST				ACCUMULATED DEPRECIATION				ACCUMULATED IMPAIRMENT				NET CARRYING AMOUNT	
	As at April 01, 2019	Additions	Disposal/ Adjust-ments	As at March 31, 2020	As at April 01, 2019	Additions	Disposal/ Adjust-ments	As at March 31, 2020	As at April 01, 2019	Recognised/ (Reversed)	Deduction/ Adjust-ments	As at March 31, 2020	As at March 31, 2020	As at March 31, 2019
Leasehold Land	712	38	-	750	-	19	-	19	-	-	-	-	731	-
Buildings	70	21	(7)	84	-	26	(1)	25	-	-	-	-	59	-
Plant and Machinery	56	6	(1)	61	38	5	-	43	-	-	-	-	18	-
Vehicles and Aircraft	8	14	-	22	-	6	-	6	-	-	-	-	16	-
Railway Wagons	41	-	-	41	-	4	-	4	-	-	-	-	37	-
Railway Sidings	21	-	-	21	-	10	(1)	9	-	-	-	-	12	-
Furniture and Fixtures	10	-	-	10	3	2	-	5	-	-	-	-	5	-
Total	**918**	**79**	**(8)**	**989**	**41**	**72**	**(2)**	**111**	**-**	**-**	**-**	**-**	**878**	**-**

C Lease liabilities recognised against Right of Use Assets are as follows:

(₹ in Crore)

	As at			
	31/03/2021		31/03/2020	
	Non-Current	Current	Non-Current	Current
Lease liabilities against Right of Use Assets	236	75	241	76
	236	**75**	**241**	**76**

3. Investment Properties

Refer Note 1B (E) for accounting policy on Investment properties

Refer Note 1B (I) for accounting policy on Impairment of Non-Current Assets

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Cost	13	13
Less: Accumulated Depreciation and Impairment	(5)	(4)
Net Carrying amount	**8**	**9**

(₹ in Crore)

Particulars	ORIGINAL COST				ACCUMULATED DEPRECIATION				ACCUMULATED IMPAIRMENT				NET CARRYING AMOUNT	
	As at April 01, 2020	Addition	Disposal/ Adjust-ments	As at March 31, 2021	As at April 01, 2020	Addition	Disposal/ Adjust-ments	As at March 31, 2021	As at April 01, 2020	Recognised/ (Reversed)	Disposal/ Adjust-ments	As at March 31, 2021	As at March 31, 2021	As at March 31, 2020
Freehold Land	1	-	-	1	-	-	-	-	-	-	-	-	1	1
Buildings	12	-	-	12	4	1	-	5	-	-	-	-	7	8
Total	**13**	**-**	**-**	**13**	**4**	**1**	**-**	**5**	**-**	**-**	**-**	**-**	**8**	**9**

(₹ in Crore)

Particulars	ORIGINAL COST				ACCUMULATED DEPRECIATION				ACCUMULATED IMPAIRMENT				NET CARRYING AMOUNT	
	As at April 01, 2019	Addition	Disposal/ Adjust-ments	As at March 31, 2020	As at April 01, 2019	Addition	Disposal/ Adjust-ments	As at March 31, 2020	As at April 01, 2019	Recognised/ (Reversed)	Disposal/ Adjust-ments	As at March 31, 2020	As at March 31, 2020	As at March 31, 2019
Freehold Land	1	-	-	1	-	-	-	-	-	-	-	-	1	1
Buildings	12	-	-	12	4	-	-	4	-	-	-	-	8	8
Total	**13**	**-**	**-**	**13**	**4**	**-**	**-**	**4**	**-**	**-**	**-**	**-**	**9**	**9**

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
(a) Amount recognised in profit and Loss for Investment Properties are as under:		
Rental income	3	3
Direct operating expenses (including repairs and maintenance) on properties generating rental income	(1)	(1)
Direct operating expenses (including repairs and maintenance) on properties not generating rental income	-	-

(b) The Company has no contractual obligations to purchase, construct or develop Investment Properties or for repairs, maintenance and enhancements. There is no restrictions on the realisability of investment properties or the remittance of income and proceeds of disposal on the Company.

(c) The fair value of the Company's Investment properties as at March 31, 2021 and as at March 31, 2020, have been arrived at on the basis of valuation carried out at the respective dates by an external, independent valuer registered with the authority which governs the valuer in India. The fair value measurement for all the investments properties has been categorised as Level 2 based on the inputs to the valuation technique used. Considering the type of the assets, market approach (sales comparable method) to estimate the fair value of the subject properties is adopted.

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Fair Value of Investment Properties:	**Level 2**	**Level 2**
Freehold Land	1	1
Buildings	48	48
	49	**49**

(d)

Items of Investment Properties	Useful Life (Years)
Freehold Land	Infinite
Buildings	60

(e) Certain Investment Properties are given as security towards Non-Convertible debentures of ₹ 6,000 Crore (as at 31/03/2020 ₹ 6,000 Crore), refer note - 18A (a).

4. Intangible Assets and Intangible Assets under Development

Refer Note 1B (F) for accounting policy on Intangible Assets

Refer Note 1B (G) for accounting policy on Stripping cost

Refer Note 1B (I) for accounting policy on Impairment of Non-Current Assets

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Cost	777	680
Less: Accumulated Amortization and Impairment	(456)	(366)
Net Carrying amount	**321**	**314**
Intangible Assets under Development - (b)	**122**	**73**

(₹ in Crore)

Particulars	ORIGINAL COST				ACCUMULATED AMORTIZATION				ACCUMULATED IMPAIRMENT				NET CARRYING AMOUNT	
	As at April 01, 2020	Addition	Disposal/ Adjust-ments	As at March 31, 2021	As at April 01, 2020	Addition	Disposal/ Adjust-ments	As at March 31, 2021	As at April 01, 2020	Recognised/ (Reversed)	Disposal/ Adjust-ments	As at March 31, 2021	As at March 31, 2021	As at March 31, 2020
Mining rights	568	58	35	661	261	41	2	304	-	44	-	44	313	307
Computer Software	73	4	-	77	66	3	-	69	-	-	-	-	8	7
Technological Licenses	39	-	-	39	39	-	-	39	-	-	-	-	-	-
Total	**680**	**62**	**35**	**777**	**366**	**44**	**2**	**412**	**-**	**44**	**-**	**44**	**321**	**314**

(₹ in Crore)

Particulars	ORIGINAL COST				ACCUMULATED AMORTIZATION				ACCUMULATED IMPAIRMENT				NET CARRYING AMOUNT	
	As at April 01, 2019	Addition	Disposal/ Adjust-ments	As at March 31, 2020	As at April 01, 2019	Addition	Disposal/ Adjust-ments	As at March 31, 2020	As at April 01, 2019	Recognised/ (Reversed)	Disposal/ Adjust-ments	As at March 31, 2020	As at March 31, 2020	As at March 31, 2019
Mining rights	517	51	-	568	206	55	-	261	-	-	-	-	307	311
Computer Software	72	2	(1)	73	64	3	(1)	66	-	-	-	-	7	8
Technological Licenses	39	-	-	39	39	-	-	39	-	-	-	-	-	-
Rights to Use Assets	81	-	(81)	-	55	-	(55)	-	-	-	-	-	-	26
Total	**709**	**53**	**(82)**	**680**	**364**	**58**	**(56)**	**366**	**-**	**-**	**-**	**-**	**314**	**345**

(a) Addition in Mining Rights includes ₹ 44 crore and amortization expense includes ₹ 20 Crore (as at 31/03/2020, addition included ₹ 47 Crore, and amortization expense included ₹ 38 Crore) towards stripping activity assets.

(b) The Carrying amount of Intangible Asset under Development as at 31/03/2021 is ₹ 122 Crore (as at 31/03/2020 was ₹ 73 Crore). This includes ₹ 116 Crore pertaining to Enterprise Resource Planning System implementation (as at 31/03/2020 was ₹ 70 Crore). The Company has tested the carrying value of Intangible Asset under Development for impairment as at reporting date.

(c)

Items of Intangible Assets	Useful Life (Years)
Mining rights	8 to 41
Computer Software	3 to 6
Technological Licenses	4 to 5

(d) Remaining amortisation period of mining rights ranges between 5 -35 years.

(e) The useful live of Intangible assets are reviewed, and adjusted if appropriate, at the end of each reporting period.

(f) All Computer Software items in Intangible Assets (except of Mahan Aluminium, Aditya Aluminium, Kalwa Plant of the Company) are also given as security towards Non-convertible debentures of ₹ 6,000 Crore (as at 31/03/2020 ₹ 6,000 Crore), refer note - 18A (a).

(g) During the year, the Company has impaired the Mining rights assets, refer note 35 for further details.

5. Investment in Subsidiaries

(Fully paid-up unless otherwise stated)

Refer Note 1B (A) for accounting policy on Investment in subsidiaries

(₹ in Crore)

Investment in Equity Shares - (a) and (d) Unquoted	Face Value Per Unit	Numbers as at 31/03/2021	Numbers as at 31/03/2020	Value as at 31/03/2021	Value as at 31/03/2020
A V Minerals (Netherlands) N.V.	€ 567.83	2,376,838	2,376,694	10,175	10,174
Dahej Harbour & Infrastructure Limited	₹ 10	50,000,000	50,000,000	50	50
East Coast Bauxite Mining Company Pvt Limited	₹ 10	7,400	7,400	-	-
Hindalco Almex Aerospace Limited	₹ 10	172,115,744	172,115,744	83	83
Lucknow Finance Company Limited	₹ 10	9,902,500	9,902,500	10	10
Minerals & Minerals Limited	₹ 10	50,000	50,000	-	-
Renuka Investments & Finance Limited	₹ 10	9,250,000	9,250,000	9	9
Renukeshwar Investments & Finance Limited	₹ 10	4,795,000	4,795,000	5	5
Suvas Holdings Limited	₹ 10	22,149,714	22,149,714	22	22
Utkal Alumina International Limited	₹ 10	6,251,482,818	6,251,482,818	6,362	6,362
Kosala Livelihood and Social Foundation - (b)	₹ 10	100,000	-	-	-
				16,716	**16,715**

(₹ in Crore)

Other Equity Investment - (c) (Fair Value of Financial Guarantee given for)	Face Value Per Unit	Numbers as at 31/03/2021	Numbers as at 31/03/2020	Value as at 31/03/2021	Value as at 31/03/2020
Utkal Alumina International Limited	NA	NA	NA	75	75
Suvas Holdings Limited	NA	NA	NA	-	-
A V Minerals (Netherlands) N.V.	NA	NA	NA	3	3
				78	**78**
				16,794	**16,793**

(a) Aggregate carrying value of Investments in subsidiaries is ₹ 16,794 Crore (as at 31/03/2020 ₹ 16,793). None of the subsidiaries are listed on any stock exchange in India or outside India and these investments are carried at cost. There is no accumulated impairment as at current or previous year end.

(b) During the current year, "Kosala Livelihood and Social Foundation" a wholly owned subsidiary has been incorporated under Section 8 of the Companies Act, 2013 to promote the art of Kosa silk weaving and provide sustainable livelihood to the local community of reelers and weavers in the State of Chhattisgarh and Jharkhand.

(c) Financial guarantees given to subsidiaries were initially recognised at fair value will continue to be accounted as Other Equity Investment until the investment in subsidiaries are derecognised or impaired.

(d) Refer Note - 43 Related Party Disclosure for information on principal place of business of the above Subsidiaries.

6. Investment in Associates and Joint Ventures

(Fully paid-up unless otherwise stated)

Refer Note 1B (B) for accounting policy on Investment in Associates

Refer Note 1B (A) for accounting policy on Investment in Joint Ventures

A Investments in Associates

(₹ in Crore)

	Face Value Per Unit	Numbers as at 31/03/2021	Numbers as at 31/03/2020	Value as at 31/03/2021	Value as at 31/03/2020
Investment in Equity Shares at FVTOCI - (a)					
Unquoted					
Aditya Birla Science and Technology Company Private Limited	₹ 10	9,800,000	9,800,000	74	27
Aditya Birla Renewables Subsidiary Limited	₹ 10	6,895,200	6,895,200	54	7
Aditya Birla Renewables Solar Limited	₹ 10	130,000	-	-	-
Total (A)				**128**	**34**

B Investments in Joint Ventures

	Face Value Per Unit	Numbers as at 31/03/2021	Numbers as at 31/03/2020	Value as at 31/03/2021	Value as at 31/03/2020
Investment in Equity Shares at Cost - (a)					
Unquoted					
MNH Shakti Limited	₹ 10	12,765,000	12,765,000	13	13
Hydromine Global Minerals GMBH Limited	$100	66,562	66,562	1	1
Total (B)				**14**	**14**
Investment in Associates and Joint Ventures (A+B)				**142**	**48**

(a) Aggregate amount of investments is given below:	31/03/2021	31/03/2020
Aggregate cost of unquoted investments in Associates	17	17
Aggregate cost of unquoted investments in Joint Ventures	46	46
Impairment on unquoted investments in Joint Ventures	(32)	(32)

(b) Refer Note - 43 Related Party Disclosure for information on principal place of business of the above Associates and Joint Ventures.

7A. Other Investments, Non-Current

Refer Note 1B (P) for accounting policy on Financial Instruments

(₹ in Crore)

	Face Value	Numbers as at		Value as at	
	Per Unit	31/03/2021	31/03/2020	31/03/2021	31/03/2020
Equity instruments at FVTOCI - (a)					
(Fully paid-up unless otherwise stated)					
Quoted					
National Aluminium Company Limited - (refer note - 7B(d))	₹ 5	-	18,385,327	-	53
Grasim Industries Limited	₹ 2	28,222,468	28,222,468	4,093	1,344
Ultra Tech Cement Limited	₹ 10	1,258,515	1,258,515	848	408
Aditya Birla Fashion & Retail Limited	₹ 10	44,982,142	44,982,142	905	688
Aditya Birla Fashion & Retail Limited (Partly paid up, refer note - b)	₹ 7.50	5,257,652	-	89	-
Vodafone Idea Limited	₹ 10	751,119,164	751,119,164	695	233
Aditya Birla Capital Limited	₹ 10	39,511,455	39,511,455	471	167
				7,101	**2,893**
Unquoted					
Sai Wardha Power Generation Limited - (c)	₹ 10	2,830,352	2,830,352	-	3
Birla International Limited	CHF 100	2,500	2,500	5	5
Bharuch Dahej Railway Company Limited	₹ 10	13,530,000	13,530,000	15	19
				20	**27**
Debt Instruments at FVTOCI - (a)					
Quoted					
Government Securities - (d)					
6.83% Government of India Bond, 2039		2,000,000	2,000,000	20	20
6.57% Government of India Bond, 2033		5,000,000	-	50	-
6.45% Government of India Bond, 2029		5,000,000	-	50	-
5.79% Government of India Bond, 2030		10,000,000	-	96	-
6.19% Government of India Bond, 2034		10,000,000	-	96	-
				312	**20**
Debt Instruments at FVTPL - (a)					
Unquoted					
Mutual Funds					
Investments in Debt Schemes of Mutual Funds				4	19
				4	**19**
				7,437	**2,959**

(a) Aggregate amount of Quoted and Unquoted Investments, Market value of Quoted Investments are given below:

Aggregate Cost of Quoted Investments	1,470	1,174
Aggregate Market value of Quoted Investments	7,413	2,913
Aggregate Cost of Unquoted Investments	25	38
Aggregate amount of impairment in value of investments	3	-
Aggregate Carrying value of Quoted and Unquoted Investments	7,437	2,959

(b) During the current year, the Company has subscribed to the Rights issue of Aditya Birla Fashion & Retail Limited at ₹ 110 per share (Face value of ₹ 10 and Premium of ₹ 100). The Company has invested ₹ 43 Crore (52,57,652 shares at ₹ 82.50 per share) and Final call of ₹ 27.50 per share is yet to be made.

(c) Hindalco Industries Limited entered in Power Purchase agreement with Sai Wardha Power Generation Limited (SWPGL) in 2017 under Group captive Power purchase scheme (GCPP scheme) under the Electricity Act 2003. To meet the requirement of GCPP Scheme the Company participated in equity of SWPGL to extent of 0.70%. In the current year this investment has been impaired subsequent to National Company Law Tribunal (NCLT) judgment declaring SWPGL as insolvent.

(d) Investments in Government Securities include ₹ 242 Crore (as at 31/03/2020 ₹ Nil) being deposit as margin money with counter parties for derivative transactions.

7B. Investments, Current

Refer Note 1B (P) for accounting policy on Financial Instruments

(₹ in Crore)

	Face Value	Numbers as at		Value as at	
	Per Unit	31/03/2021	31/03/2020	31/03/2021	31/03/2020
Equity instruments at FVTOCI - (b) and (d)					
(Fully paid-up unless otherwise stated)					
Quoted					
National Aluminium Company Limited	₹ 5	18,385,327	-	99	-
				99	**-**
Investments in Government securities at FVTOCI - (b)					
Quoted					
7.95% GOI FCI Special Bonds, 2026	₹ 100	513,000	513,000	5	5
6.65% GOI FCI Special Bonds, 2023	₹ 100	2,096,600	2,096,600	22	22
7.00% GOI FCI Special Bonds, 2022	₹ 100	3,039,500	3,039,500	31	31
6.20% GOI FCI Special Bonds, 2022	₹ 100	1,432,100	1,432,100	15	15
				73	**73**
Investments in Debentures and Bonds at FVTPL					
Investment in Other Entities - (b) and (c)					
Quoted					
7.18% NCD of IRFC	₹ 1,000	1,192	1,192	-	-
8.10% NCD of IRFC	₹ 1,000	30,453	30,453	4	3
7.19% NCD NHB	₹ 1,000,000	50	50	5	5
8.12% NCD of REC Limited	₹ 1,000	43,523	43,523	5	5
7.93% NCD of REC Limited	₹ 1,000	56,615	56,615	6	6
7.22% NCD of REC Limited	₹ 1,000	5,130	5,130	1	1
7.38% NCD of REC Limited	₹ 1,000	10,321	10,321	1	1
8.11% NCD of REC Limited	₹ 1,000,000	250	250	27	26
8.27% NCD of REC Limited	₹ 1,000,000	250	250	27	26
7.18% NCD of PFC	₹ 1,000,000	500	500	51	51
7.19% NCD of PFC	₹ 1,000	9,565	9,565	1	1
7.36% NCD of PFC	₹ 1,000	25,187	25,187	3	3
8.20% NCD of PFC	₹ 1,000	36,862	36,862	4	4
8.30% NCD of PFC	₹ 1,000	10,163	10,163	1	1
7.77% NCD of PNB Housing Finance Ltd.	₹ 1,000,000	-	500	-	49

(₹ in Crore)

	Face Value Per Unit	Numbers as at 31/03/2021	Numbers as at 31/03/2020	Value as at 31/03/2021	Value as at 31/03/2020
7.07% HUDCO Bonds	₹ 1,000,000	50	50	5	5
7.34% HUDCO Bonds	₹ 1,000	100,000	100,000	11	11
7.51% HUDCO Bonds	₹ 1,000	50,000	50,000	6	6
7.28% NHAI Bonds	₹ 1,000,000	50	50	6	6
				164	**210**
Investments in Mutual Funds at FVTPL - (a) and (b)					
Quoted					
Investments in Debt Schemes of Mutual Funds				7,022	4,556
				7,358	**4,839**

(a) Investments in Debt Schemes of Mutual Funds include ₹ 25 Crore (as at 31/03/2020 ₹ 161 Crore) being deposit as margin money with counter parties for derivative transactions.

(b) Aggregate amount of Quoted and Unquoted Investments, Market value of Quoted Investments are given below:

Aggregate Cost of Quoted Investments	7,193	4,511
Aggregate Market value of Quoted Investments	7,358	4,839
Aggregate Cost of Unquoted Investments	-	-
Aggregate amount of impairment in value of investments	-	-
Aggregate Carrying value of Quoted and Unquoted Investments	7,358	4,839

(c) NCD stands for Non Convertible Debentures

(d) During the current year, the Company has decided to sale its entire holding in National Aluminium Company Limited (NALCO). Accordingly, the investment in NALCO has been reclassified as current investment.

8. Loans

(Unsecured, Considered Good unless otherwise stated)

Refer Note 1B (P) for accounting policy on Financial Instruments

(₹ in Crore)

	As at 31/03/2021 Non-Current	31/03/2021 Current	31/03/2020 Non-Current	31/03/2020 Current
Loan to Related Parties - (a)	4	45	6	49
Loan to Employees	7	4	8	6
Loan to Others	-	-	-	-
	11	**49**	**14**	**55**

(a) Refer note - 43 for balances with related parties.

9A. Other Financial Assets, Non-Current

(Unsecured, Considered Good unless otherwise stated)

Refer Note 1B (P) for accounting policy on Financial Instruments

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Security Deposits - (a)	141	127
Deposit with Others - (b)	47	38
	188	**165**

(a) Refer note - 43 for balances with related parties.

(b) Earmarked balances with Banks is ₹ 36 Crore (as at 31/03/2020 ₹ 29 Crore).

9B. Other Financial Assets, Current

(Unsecured, Considered Good unless otherwise stated)

Refer Note 1B (P) for accounting policy on Financial Instruments

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Derivatives Matured pending Realisation	-	49
Security Deposits	24	36
Deposits with Non-Banking Financial Company with initial maturity more than 3 months	150	-
Accrued Interest	22	18
Other Receivables		
Unsecured, Considered Good	58	17
Unsecured, Considered Doubtful	12	63
Less: Allowance for Doubtful Receivables	(12)	(63)
	254	**120**

10. Other Non Current and Current Assets

(Unsecured, Considered Good unless otherwise stated)

(₹ in Crore)

	As at 31/03/2021 Non-Current	31/03/2021 Current	31/03/2020 Non-Current	31/03/2020 Current
Capital Advance	115	-	166	-
Advance to Employees	-	11	-	16
Deposit with Government and Other Authorities	-	37	-	39
Advance to Supplier for Goods and Services - (a)	89	604	141	805
Prepaid Expenses - (b)	5	55	8	34
Others - (c) and (d)				
Unsecured Considered Good	634	731	402	905
Unsecured, Considered Doubtful	12	120	10	138
Less: Allowance for Doubtful amount	(12)	(120)	(10)	(138)
	843	**1,438**	**717**	**1,799**

(a) Refer note - 43 for balances with related parties.

(b) Prepaid Expenses include ₹ 12 Crore (as at 31/03/2020 Nil) excess CSR spent carried forward to subsequent years. Refer note 53A for further details.

(c) Mainly includes unutilised tax credits and claims receivables from Indirect Tax Authorities.

(d) Includes ₹ 192 Crore (Garepalma ₹ 74 Crore and Kathautia ₹ 118 Crore) [as at 31/03/2020 ₹ 192 Crore (Garepalma ₹ 74 Crore and Kathautia ₹ 118 Crore)] towards appropriation of Performance Bank Guarantee by Nominated Authority (NA). Refer note - 52 for further details.

11. Inventories

Refer Note 1B (M) for accounting policy on Inventories

(₹ in Crore)

	As at 31/03/2021			As at 31/03/2020		
	In Hand	In Transit	Total	In Hand	In Transit	Total
Raw Materials	2,038	5,128	7,166	1,786	2,285	4,071
Work-in-Progress	6,395	33	6,428	4,572	23	4,595
Finished Goods	1,288	160	1,448	1,282	55	1,337
Stock-in-Trade	4	-	4	127	-	127
Stores and Spares	550	45	595	585	33	618
Coal and Fuel	339	9	348	395	82	477
	10,614	**5,375**	**15,989**	**8,747**	**2,478**	**11,225**

(a) The Company has extended fair value hedge accounting on its inventory which forms part of Work-in-Progress and Finished Goods, Fair value hedges are mainly used to hedge the exposure to change in fair value of commodity price risks. The fair value adjustment remains part of the carrying value of inventory and is taken to profit and loss when the inventory is either sold or consumed, refer note - 49A and 49H.

(b) For Inventories hypothecated against secure short-term borrowings, refer note - 18B (a).

(c) Write downs of inventories (net of reversal) to net realizable value related to raw materials, work-in-progress and finished goods amounted to ₹ 349 Crore (as at 31/03/2020 ₹ 266 Crore). These were recognized as expense during the year and included in 'cost of raw material consumed' and 'change in value of inventories of work-in-progress and finished goods' in statement of Profit and Loss.

(d) Inventories in hand include bulk materials of Coal, Bauxite and Copper Concentrate lying at yards, mines, plants and precious metals of Gold and Silver lying at Copper smelter and refinery aggregating to ₹ 3,179 Crore (as at 31/03/2020 ₹ 3,255 Crore).

12. Trade Receivables

Refer Note 1B (N) for accounting policy on Trade receivable

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Trade Receivables:		
Secured, Considered Good	4	3
Unsecured, Considered Good	1,600	2,099
Unsecured, Credit Impaired	30	30
	1,634	**2,132**
Less: Loss Allowances - (c)	(32)	(39)
	1,602	**2,093**

(a) For trade receivables hypothecated against borrowings, refer note - 18B (a)

(b) No trade or other receivable are due from directors or other officers of the Company either severally or jointly with any other person. Further no trade or other receivable are due from firms or private companies respectively in which any director is a partner, or director or member.

(c) Loss allowances includes provision of ₹ 2 crore (31/03/2020: ₹ 9 crore) made on account of expected credit loss on Trade Receivables, refer note - 48 (C)

(d) Refer note - 43 for balances with related parties.

13. Cash and Cash Equivalents

Refer Note 1B (R) for accounting policy on Cash and cash equivalents

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Cash in Hand	-	-
Cheques and Drafts in Hand - (a)	8	6
Balances with Banks		
Current Accounts	254	213
Deposit with Initial maturity of less than three months	-	1,974
Short term liquid Investments in Mutual Funds	741	1,072
	1,003	**3,265**

(a) Includes ₹ 3 Crore (as at 31/03/2020 ₹ 0.01 Crore) remittance in transit.

(b) There is no repatriation restriction with regard to cash and cash equivalents at the end of reporting period and prior periods.

14. Bank Balances other than Cash and Cash Equivalents

Refer Note 1B (P) for accounting policy on Financial Instruments

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Balances with Banks		
Earmarked Balances - (a)	13	12
Deposits with Initial Maturity more than three months	3	3
	16	**15**

(a) Includes unclaimed dividend of ₹ 4 Crore(as at 31/03/2020 ₹ 4 Crore)

15. Non-Current Assets or Disposal Group Classified as Held For Sale

Refer Note 1B (H) for accounting policy on Non-current assets (or disposal groups) held for sale

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Assets of Disposal Group held for Sale	4	68
	4	**68**
(a) **Assets of disposal group held for sale**		
Land and Building	1	25
Plant and Machinery	3	41
Others	-	2
Total	**4**	**68**

(b) During the year, the Company based on future utilisation plan has reclassified certain assets to Property, Plant and equipment which were kept as Assets of Disposal Group held for Sale, refer note 2A.

(c) During the year, the Company has recognised impairment loss of ₹ 25 Crore on Assets which are held for disposal, refer note 35.

(d) The fair value of the assets held for sale approximates the carrying value.

(e) The Company is in the process of disposing the remaining assets.

16. Equity Share Capital

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Authorised		
2,500,000,000 (as at 31/03/2020: 2,500,000,000) Equity Shares of ₹ 1/- each	250	250
25,000,000 (as at 31/03/2020: 25,000,000) Redeemable Cumulative Preference Shares of ₹ 2/- each	5	5
	255	255
Issued		
2,247,237,893 (as at 31/03/2020: 2,246,776,333) Equity Shares of ₹ 1/- each - (a)	225	225
	225	225
Subscribed and Paid-up		
2,247,230,496 (as at 31/03/2020: 2,246,768,936) Equity Shares of ₹ 1/- each fully paid-up	225	225
Less: Face Value of 546,249 (as at 31/03/2020: 546,249) Equity Shares forfeited	-	-
Add: Forfeited Shares (Amount originally Paid up)	-	-
	225	225
Less: Treasury Shares		
16,316,130 (as at 31/03/2020: 16,316,130) Equity Shares. - (b)	(2)	(2)
5,824,965 (as at 31/03/2020: 5,885,672) Equity Shares - (c)	(1)	(1)
	222	**222**

(a) Issued Equity Capital as at 31/03/2021 includes 7,397 Equity Shares (as at 31/03/2020 7,397 Equity Shares) of ₹ 1/- each issued on Rights basis kept in abeyance due to legal case pending.

(b) Treasury shares include shares held by Trident Trust which represents 16,316,130 (as at 31/03/2020: 16,316,130) equity shares of ₹ 1/- each fully paid-up of the Company issued, pursuant to a Scheme of Arrangement approved by the Hon'ble High Courts of Mumbai and of Allahabad, vide their Orders dated 31st October, 2002, and 18th November, 2002, respectively, to the Trident Trust, created wholly for the benefit of the Company and is being managed by trustees appointed by it. The tenure of the Trust is up to January 23, 2024.

(c) Treasury shares include shares held by Hindalco Employee Welfare Trust which represents 5,824,965 equity shares (as at 31/03/2020 5,885,672 Equity Shares) of ₹ 1/- each fully paid-up of the Company. The Trust buys shares of the Company from the market, for giving shares to employees pursuant to the Employees Stock Option Scheme, 2018. Refer note 17 (A) (viii) for further details.

(d) Reconciliation of shares outstanding at the beginning and at the end of the reporting period:

	As at			
	31/03/2021		31/03/2020	
	Numbers	₹ in Crore	Numbers	₹ in Crore
Equity shares outstanding at the beginning of the period	2,224,020,885	222	2,223,655,388	222
Equity shares allotted pursuant to exercise of Employee Stock Option Scheme (ESOS)	461,560	-	692,442	-
Equity shares purchased from market pursuant to ESOS	-	-	(326,945)	-
Equity shares allotted pursuant to exercise of ESOS through Hindalco Employee Welfare Trust	60,707	-	-	-
Equity shares outstanding at the end of the period	2,224,543,152	222	2,224,020,885	222

(e) Rights, preferences and restrictions attached to Equity Shares:

The Company has one class of equity shares having a par value of ₹ 1/- per share. Each shareholder is eligible for one vote per share held. The dividend proposed by the Board of Directors is subject to the approval of the shareholders in the ensuing Annual General Meeting, except in case of interim dividend. In the event of liquidation, the equity shareholders are eligible to receive the remaining assets of the Company after distribution of all preferential amounts, in proportion to their shareholding.

(f) Details of shareholders holding more than 5% Equity Shares in the Company on reporting date:

	As at			
	31/03/2021		31/03/2020	
	Number of Shares Held	Percentage of Holding *	Number of Shares Held	Percentage of Holding *
IGH Holdings Private Limited	349,963,487	15.58	349,963,487	15.58
Birla Group Holdings Private Limited	228,292,308	10.16	228,292,308	10.16
Life Insurance Corporation of India and its Associates	203,135,624	9.04	223,822,083	9.96
ICICI Prudential Mutual Fund and its Associates	106,493,086	4.74	181,533,867	8.08
Morgan Guaranty Trust Company of New York	151,010,943	6.72	149,888,482	6.67

* Percentage have been calculated on the basis of total number of shares outstanding (before adjusting shares held by Trident Trust and ESOP Trust, refer footnote (b) above and note 17 (A) (viii).

(g) Shares reserved for issue under options:

The Company has reserved equity shares for issue under the Employee Stock Option Schemes, refer note 42 - Employee Share-based Payments for details of Employee Stock Option Schemes.

(h) The Company during the preceding 5 years:

i. Has not allotted shares pursuant to contracts without payment received in cash.

ii. Has not issued shares by way of bonus shares.

iii. Has not bought back any shares.

(i) The Board of Directors of the Company has recommended final dividend of ₹ 3.00 per share aggregating to ₹ 674 Crore for the year ended 31st March 2021 which has not been recognised in the financial statement.

17. Other Equity

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
Share Application Money pending Allotment	-	-
Reserves and Surplus		
Capital Reserve	145	145
Capital Redemption Reserve	102	102
Business Reconstruction Reserve	7,715	7,715
Securities Premium	8,224	8,217
Debenture Redemption Reserve	1,350	1,200
Employee Stock Options	55	45
Treasury Shares held by ESOP Trust	(129)	(130)
General Reserve	21,354	21,354
Retained Earning	5,494	4,834
	44,310	**43,482**
Other Reserves		
Gain/ (Loss) on Equity Instruments FVTOCI	6,117	1,766
Gain/ (Loss) on Debt Instruments FVTOCI	1	7
Effective portion of Cash Flow Hedge	(596)	(102)
Cost of Hedging Reserve	10	119
	5,532	**1,790**
	49,842	**45,272**

(A) Brief Descriptions of items of Other Equity are given below:

(i) Share Application Money pending Allotment:

Share application money pending allotment represents amount received from employees who has exercised employee stock options for which shares are pending allotment as on balance sheet date.

(ii) Capital Reserve:

The Company has created capital reserve pursuant to past mergers and acquisitions.

(iii) Capital Redemption Reserve:

The Company has created capital redemption reserve as per the requirement of the Companies Act.

(iv) Business Reconstruction Reserve:

The Company had formulated a scheme of financial restructuring under sections 391 to 394 of the Companies Act 1956 ("the Scheme") between the Company and its equity shareholders approved by the High Court of judicature of Bombay to deal with various costs associated with its organic and inorganic growth plan. Pursuant to this, a separate reserve account titled as Business Reconstruction Reserve ("BRR") was created during the year 2008-09 by transferring balance standing to the credit of Securities Premium Account of the Company for adjustment of certain expenses as prescribed in the Scheme.

(v) Securities Premium:

Securities premium reserve is used to record the premium on issue of shares. The reserve is utilized in accordance with the provision of the Act.

(vi) Debenture Redemption Reserve:

The Company is required to create a debenture redemption reserve out of the profits which is available for payment of dividend, for the purpose of redemption of debentures.

(vii) Employee Stock Options:

The employee stock option account is used to recognize the grant date fair value of options /RSUs issued to employees under stock option schemes.

(viii) Treasury Shares held by ESOP Trust

The Company has created a trust. "Hindalco Employee Welfare Trust"(Trust) for providing share-based payments to its employees (including its Subsidiaries' employees). The Company uses this Trust as a vehicle for distributing shares to employees covered under Scheme. The Trust buys shares of the Company from the market, for giving shares to employees under the Employees Stock Option Scheme, 2018.

Shares held by Trust are treated as Treasury shares. Equity instruments that are reacquired (Treasury shares) are recognised at cost and deducted from equity. No gain or loss is recognised in Statement of profit and loss on purchase, sale, issue or cancellation of Equity instruments. Share options whenever exercised, would be utilised from such treasury shares, refer note 42.

(ix) General Reserve:

The Company has created this reserve by transferring certain amount out of the profit at the time of distribution of dividend in the past.

(x) Retained Earning

Amount of retained earnings represents accumulated profit and losses of the Company as on reporting date. Such profits and losses are after adjustment of payment of dividend, transfer to any reserves as statutorily required and adjustment for realised gain/loss on derecognition of equity instruments measured at FVTOCI. Actuarial Gain/ Loss arising out of Actuarial valuation is immediately transferred to Retained Earning.

(xi) Other Reserves

a) Gain/ (Loss) on equity and debt instruments accounted as FVTOCI

The Company has elected to recognize changes in the fair value of certain investments in other comprehensive income. These changes are accumulated within the FVTOCI equity investments reserve and FVTOCI debt investment reserve within equity.

b) Effective portion of Cash Flow Hedge:

The Company uses hedging instruments as part of its risk management policy for commodity and foreign currency risk as described in note 49. The Cash Flow hedging reserve is used to recognise the effective portion of gain or loss on designated hedging relationship, refer note 49E and 49F.

c) Cost of Hedging Reserve:

The Company designates the spot component of some of its derivative instruments in cash flow hedge relationship. The Company defers changes in the forward element of such instruments in the cost of hedging reserve. The deferred cost of hedging are included in the initial cost of the related hedged items when it is recognized or reclassified to the statement of profit or loss when the hedged item effects the statement of profit or loss. The Company designates intrinsic value of option contracts and the time value of option contracts is included in the cost of hedging reserve, refer note 49E and 49F.

(B) Movement of each item of other equity is presented in Statement of Changes in Equity (SOCIE)

18A. Borrowings, Non-Current

Refer Note 1B (P) for accounting policy on Financial Instruments

(₹ in Crore)

Particulars	As at					
	31/03/2021			31/03/2020		
	Non-Current Portion	Current Maturities #	Total	Non-Current Portion	Current Maturities #	Total
Secured						
Debentures						
Secured Non-Convertible Debentures - (a)	5,997	-	5,997	5,994	-	5,994
Term Loans						
From Banks						
Rupee Term Loans - (b)	9,177	8	9,185	9,197	6	9,203
Foreign Currency Term Loans - (c)	-	457	457	469	-	469
	15,174	**465**	**15,639**	**15,660**	**6**	**15,666**

Current maturities of non-current borrowings have been disclosed under "Other Financial Liabilities, Current", refer note 21B.

(a) Debentures comprise of following:

(₹ in Crore)

	As at				
	31/03/2021		31/03/2020		Redemption Date
	Gross Amount	Carrying Value	Gross Amount	Carrying Value	
30,000 9.55% Redeemable Non-Convertible Debentures of ₹ 10 lakhs each	3,000	2,999	3,000	2,999	25/04/2022
15,000 9.55% Redeemable Non-Convertible Debentures of ₹ 10 lakhs each	1,500	1,499	1,500	1,497	27/06/2022
15,000 9.60% Redeemable Non-Convertible Debentures of ₹ 10 lakhs each	1,500	1,499	1,500	1,498	02/08/2022
	6,000	**5,997**	**6,000**	**5,994**	

All the above Debentures are secured by moveable items of Property, Plant and Equipment, both present and future (except moveable assets of Mahan Aluminium, Aditya Aluminium, Kalwa plant, Current Assets of the Company) and certain immoveable properties of the Company, refer note - 2A (c) (iii).

(b) Rupee term loan from banks comprise of following:

(₹ in Crore)

	Note	Rate of Interest^	As at				End of tenure
			31/03/2021		31/03/2020		
			Gross Amount	Carrying Value	Gross Amount	Carrying Value	
Axis Bank	(I)	Repo Rate + 275 bps *	619	610	619	613	31/03/2030
State Bank of India	(I)	MCLR 3 Month + 10 bps	2,239	2,227	2,239	2,227	31/03/2030
ICICI Bank	(I)	3 Month T bill + 357 bps #	84	84	90	90	31/03/2030
Rupee Term Loans : Mahan Unit (A)			**2,942**	**2,921**	**2,948**	**2,930**	
State Bank of India	(II)	MCLR 3 Month + 10 bps	4,672	4,657	4,672	4,657	01/09/2030
PNB Bank	(II)	MCLR 1 Month + 5 bps #	256	255	256	255	01/09/2030
Axis Bank	(II)	Repo Rate + 275 bps *	1,371	1,352	1,371	1,361	01/09/2030
Rupee Term Loans : Aditya Unit (B)			**6,299**	**6,264**	**6,299**	**6,273**	
Total Rupee Term Loans (A)+(B)			**9,241**	**9,185**	**9,247**	**9,203**	

^ **Definition of abbreviation used**

(i) 100 basis points (bps) is equal to 1%

(ii) Repo rate is the rate at which RBI lends funds to commercial banks.

(iii) Marginal Cost of funds based Lending Rate (MCLR) is a tenor-linked internal benchmark rate of respective bank

(iv) Treasury Bill (T-bill) means the rate of interest published by the Financial Benchmarks India Pvt. Ltd. ("FBIL").

* Benchmark changed w.e.f. Oct 2020. Previous benchmark was MCLR 1 Month

Benchmark changed w.e.f. Dec 2020. Previous benchmark was MCLR 3 Month

(I) The term loans from banks of ₹ 2,942 Crore (gross) (31/03/2020: ₹ 2,948) are secured by a first ranking charge/ mortgage/ security interest in respect of all the moveable and immoveable items of Property, Plant and Equipment of Mahan Aluminium, both present and future. ₹ 2,858 Crore (gross) is to be repaid in 16 quarterly instalments commencing from June 2026. ₹ 84 Crore (gross) (31/03/2020: ₹ 90) is to be repaid in 36 quarterly instalments, refer note - 2A(c) (i).

(II) The term loan of ₹ 6,299 Crore (gross) is secured by a first ranking charge/ mortgage/security interest in respect of all the moveable and immoveable items of Property, Plant and Equipment of Aditya Aluminium both present and future. ₹ 6,299 Crore (gross) is to be repaid in 26 quarterly instalments commencing from May 2024, refer note - 2A(c) (ii).

(c) Foreign currency term loans from bank comprise of following:

(₹ in Crore)

	Currency	Rate of Interest	As at				End of tenure
			31/03/2021		31/03/2020		
			Gross Amount	Carrying Value	Gross Amount	Carrying Value	
Bank of Tokyo Mitsubishi (BTMU)	USD	LIBOR 3M + 135 bps	293	291	301	299	31/03/2022
Bank of Tokyo Mitsubishi (BTMU)	USD	LIBOR 3M + 135 bps	167	166	172	170	30/06/2022
Foreign Currency Term Loans : Mahan Unit			**460**	**457**	**473**	**469**	

Foreign currency term loan pertains to loan from Bank of Tokyo Mitsubishi (BTMU) of USD 40 Millions and USD 22.79 Millions. BTMU loan is secured by a pari-passu first charge on all movable Property, Plant and Equipment of Mahan Aluminium, both present and future, refer note - 2A (c) (i). The loans were to be repaid in a single instalment at the end of the tenure. However, before the year end the Company has served a notice to prepay USD 62.79 Millions in April 2021. Accordingly, this loan has been classified as Current as on 31/03/2021.

(d) Changes in liabilities arising from financing activities

(₹ in Crore)

Particulars	Other Assets	Liabilities from Financing Activities				Total
	Cash and bank overdraft	Non Current Borrowings	Current Borrowings	Lease Liabilities	Supplier's Credit	
Balance as at April 01, 2019 #	1,508	16,143	3,924	33	-	21,608
Recognised on Adoption of Ind AS 116	-	-	-	272	-	272
Additions	-	-	-	79	-	79
Cash Flows (Net)	1723	-	3,121	(63)	-	4,781
Foreign Exchange Adjustments	-	39	368	-	-	407
Fair Value Changes, refer note 27 (c)	-	(19)	-	-	-	(19)
Debt Issuance Costs and Amortisation	-	41	-	-	-	41
Interest Expense **	-	1,342	189	25	-	1,556
Interest Paid **	-	(1,347)	(183)	(22)	-	(1,552)
Other Changes/ Reclassification - Modification/ Reassessment	-	-	-	(7)	-	(7)
Balance as at March 31, 2020 #	3,231	16,199	7,419	317	-	27,166
Additions	-	-	-	17	-	17
Cash Flows (Net)	(2,228)	(6)	(2,829)	(69)	255	(4,877)
Foreign Exchange Adjustments	-	(14)	(265)	-	-	(279)
Fair Value Changes, refer note 27 (c)	-	(56)	-	-	-	(56)
Debt Issuance Costs and Amortisation	-	49	-	-	-	49
Interest Expense **	-	1,232	140	25	-	1,397
Interest Paid **	-	(1,242)	(171)	(22)	-	(1,435)
Other Changes/ Reclassification - Modification/ Reassessment	-	-	-	43	-	43
Balance as at March 31, 2021 #	1,003	16,162	4,294	311	255	22,025

Borrowings include Interest accrued on borrowings and current maturities of related borrowings.

** Interest expense and interest paid relates to borrowings and lease liabilities before interest capitalisation.

18B. Borrowings, Current

Refer Note 1B (P) for accounting policy on Financial Instruments

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Secured		
Rupee Loans from Banks - (a) and (c)	5	1,115
	5	1,115
Unsecured		
Rupee Loans from Banks - (d)	40	1,302
Foreign currency Loans from Indian Banks - (b)	2,607	1,368
Foreign currency Loans from Foreign Banks - (b)	1,638	3,599
Other Borrowings	-	-
	4,285	6,269
	4,290	7,384

(a) Working Capital loan for Aluminium business, granted under the Consortium Lending Arrangement, are secured by a first pari-passu charge on entire stocks of raw materials, work-in-process, finished goods, consumable stores and spares and also book debts pertaining to the Company's Aluminium business, both present and future. Working Capital loan for the Copper business is secured by a first pari passu charge on stocks of raw materials, work-in-process, finished goods and consumable stores and spares and also book debts and other moveable assets of Copper business, both present and future, refer note 11 (b).

(b) Foreign currency loans from Indian Banks and Offshore branch of Foreign banks are mainly in nature of Buyers credit which has been availed for Copper business to meet its working capital requirement mostly to settle import payments of copper concentrate and certain other raw materials. Refer note 49C on non-derivative financial instruments used as hedging instruments.

(c) Secured Rupee Loan includes amount received from Banks under Special Banking Arrangement where banks pay on behalf of Government of India, amount related to Fertiliser Subsidy Receivables and Government of India pay directly to Banks.

(d) Rupee Loans from Banks represents loan taken to meet the Company's working capital requirements.

(e) Loan Details are as follows:

(₹ in Crore)

	As at				
	Currency	Rate of Interest #	Terms of Repayment #	Carrying amount	
				31/03/2021	31/03/2020
Secured					
Rupee Loans from Banks	INR	-	-	-	1,107
Rupee Loans from Banks	INR	7.35% p.a.	Payable on demand	5	8
Unsecured					
Rupee Loans from Banks	INR	3.31% p.a.	Payable in Apr 21	40	1,302
Foreign currency Loans from Indian Banks	USD	1M to 6M Libor + 20 to 40 bps	Payable from Apr 21- Aug 21	2,607	1,368
Foreign currency Loans from Foreign Banks				1,638	3,599
				4,290	7,384

Rate of Interest and Terms of repayment pertains to borrowing outstanding as at 31/03/2021.

19. Supplier's Credit

(₹ in Crore)

	As at			
	31/03/2021		31/03/2020	
	Non-Current	Current	Non-Current	Current
Supplier's Credit (a)	-	255	-	-
	-	255	-	-

(a) Supplier's credit represents the extended interest bearing credit offered by the supplier which is secured against Usance Letter of Credit (LC). Under this arrangement, the supplier is eligible to receive payment from negotiating bank prior to the expiry of the extended credit period. The interest for the extended credit period payable to the bank on maturity of the LC has been presented under Finance Cost.

20. Trade Payables

Refer Note 1B (O) for accounting policy on Trade and other payables

(₹ in Crore)

	As at			
	31/03/2021		31/03/2020	
	Non-Current	Current	Non-Current	Current
Micro and Small Enterprises - (a)	-	52	-	17
Other than Micro and Small Enterprises - (b) and (c)	-	8,748	-	3,973
	-	8,800	-	3,990

(a) Information related to Micro and Small Enterprises, as per the Micro, Small and Medium Enterprises Development Act, 2006 (MSME Development Act), are given below. The information given below have been determined to the extent such enterprises have been identified on the basis of information available with the Company:

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
(i) Principal amount outstanding	51	16
(ii) Interest on Principal amount due	-	-
(iii) Interest and Principal amount paid beyond appointment day	-	-
(iv) The amount of interest due and payable for the period of delay in making payment (which have been paid but beyond the appointed date during the year) but without adding the amount of interest specified under MSME Development Act.	1	1
(v) The amount of interest accrued and remaining unpaid at the end of the year.	1	1
(vi) The amount of further interest remaining due and payable even in the succeeding years, until such date when the interest dues as above are actually paid to the Small enterprise, for the purpose of disallowance as a deductible expenditure under Section 23 of MSME Development Act.	1	1

(b) Refer note - 43 for balances with related parties.

(c) Refer note 49C on non-derivative financial instruments used as hedging instruments.

21A. Other Financial Liabilities, Non-Current

Refer Note 1B (P) for accounting policy on Financial Instruments

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Liability for Capital Expenditure	4	5
Retention Amount Payable	6	3
	10	8

21B. Other Financial Liabilities, Current

Refer Note 1B (P) for accounting policy on Financial Instruments

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Derivatives Matured pending Realisation	-	2
Current maturities of Long-Term Borrowings	465	6
Interest Accrued but not due	527	568
Liability for Capital Expenditure	281	259
Retention Amount Payable	94	108
Security and Other deposits	31	29
Investor Education and Protection Fund		
Unclaimed Dividends - (a)	4	4
Temporary Book Overdraft	-	28
	1,402	1,004

(a) This amount do not include any amount due and outstanding, to be credited to Investor Education and Protection Fund except ₹ 0.09 crore (as at 31/03/2020 ₹ 0.07 crore) which is held in abeyance due to legal cases pending.

22. Provisions

Refer Note 1B (K) for accounting policy on Provisions and contingencies

Refer Note 1B (U) for accounting policy on Employee Benefits

(₹ in Crore)

	As at			
	31/03/2021		31/03/2020	
	Non-Current	Current	Non-Current	Current
Employee Benefits, (refer note 31)	174	268	261	263
Asset Retirement Obligations	99	-	95	-
Environmental Liability	9	54	8	45
Enterprise Social Commitment	139	9	133	11
Legal Cases	-	331	-	425
Renewable Power Obligation	-	156	-	171
Other Provisions	-	13	-	13
	421	831	497	928

(a) The details of provisions movement are as under:

(₹ in Crore)

Particulars	Assets Retirement Obligations	Environmental Liability	Enterprise Social Commitment	Legal Cases	Renewable Power Obligation	Others	Total
Balance as at April 01,2019	**91**	**72**	**155**	**288**	**82**	**14**	**702**
Provision made during the year	-	18	8	3	154	-	183
Reclassified	-	-	-	190	-	-	190
Provision utilised during the year	-	(21)	(1)	(25)	(65)	(1)	(113)
Provision reversed during the year	-	(17)	(27)	(31)	-	-	(75)
Unwinding of discount	4	1	9	-	-	-	14
Balance as at March 31,2020	**95**	**53**	**144**	**425**	**171**	**13**	**901**

(₹ in Crore)

Particulars	Assets Retirement Obligations	Environmental Liability	Enterprise Social Commitment	Legal Cases	Renewable Power Obligation	Others	Total
Provision made during the year	-	16	-	12	75	-	103
Reclassified	-	-	-	-	-	-	-
Provision utilised during the year	-	(7)	(5)	(67)	(33)	-	(112)
Provision reversed during the year - (d) and (e)	-	-	-	(39)	(57)	-	(96)
Unwinding of discount	4	1	9	-	-	-	14
Balance as at March 31,2021	**99**	**63**	**148**	**331**	**156**	**13**	**810**

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
(b) Current and Non-Current bifurcation of above provisions		
Non-Current Portion	247	236
Current Portion	563	665
	810	901

(c) Brief Description of Provisions

i) Assets Retirement Obligations

Asset Retirement Obligation (ARO) is a legal or constructive obligation associated with the ash ponds, ash pipeline and coal transportation system at Renusagar, red mud ponds at Muri and mining lands at Chattisgarh and Jharkhand where these lands need to be restored back to usable condition after closing of activities. This is a statutory requirement in which the timing or method of settlement may be conditional on one or multiple future events, the occurrence of which may not be within the control of the entity. The outflow of economic resources is expected during FY 22 to FY 47. The same has been appropriately discounted.

ii) Environmental Liability

Environmental Liability associated with disposal of hazardous material generated during the course of manufacturing or mining operation e.g. disposal of spent pot lining, Gypsum, Slag etc. This disposal generally takes place as per the guidelines set by various regulatory authorities of States and Central Government. The outflow of economic resources is generally expected in following financial year.

iii) Enterprise Social Commitment

Enterprise Social Commitment is the amount to be spent on social and economic development of the surrounding area where new project is being setup. This is generally defined as a certain percentage of the total cost of the project. The outflow of economic resources is expected during FY 22 to FY 56. This has been appropriately discounted wherever necessary

iv) Legal Cases

There are few Legal cases against which provision has been made since these events are probable to happen i.e. more likely than not but timing of occurrence of such events is uncertain as it depends on when the matter will be settled at the highest Court of Law.

v) Renewable Power Obligation (RPO)

Some of our units situated in various states like Odisha, Madhya Pradesh , Maharashtra ,Gujarat, Jharkhand etc. who gets power from Captive power plants or procure power from open source, are obligated to purchase certain portion of their power consumption from Renewable Energy sources both solar and non-solar. This gives rise to Renewable Power Obligation (RPO). In case the obligated units fail to procure power from such renewable sources, they may satisfy the obligation by purchasing Renewable Energy Certificates from authorised exchanges as an alternative.

vi) Other Provision

Includes Statutory provisions related to Indirect Taxes, Coal Cess etc.

(d) Reversal of RPO Provision Pursuant to the issuance of notification by Madhya Pradesh Electricity Regulatory Commission (MPERC) dated April 05,2021,the Company has reversed the excess RPO provision of ₹ 21 Crore related to FY20. Additionally ₹ 36 Crore has been reversed on account of reduction in Solar certificate rate from ₹ 2,400/ REC to ₹ 1,000/ REC.

(e) Reversal of Legal cases Provision Reversal of ₹ 39 Crore includes reversal of ₹ 37 Crore on account of UP Transit Fees and ₹ 2 Crore on account of Energy Compensation Charges.

23. Income Taxes

Refer Note 1B (W) for accounting policy on Income Taxes

A Current Tax and Deferred Tax Expense

(a) Income tax expenses recognised in Statement of Profit and Loss

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Current Tax		
Current income tax Expenses for the year	283	151
Tax Adjustment for earlier years	-	(14)
	283	**137**
Deferred Tax		
Deferred Income Tax (benefits)/expenses for the year	581	346
MAT Credit Entitlement	(283)	(151)
	298	**195**
Total Income Tax Expenses recognised in Statement of Profit and Loss for the year	**581**	**332**

(b) Reconciliation of estimated Income Tax Expenses at Indian Statutory Income Tax Rate to Income Tax Expenses reported in Statement of the Comprehensive Income

	31/03/2021	31/03/2020
Profit before Income Taxes	1,574	952
Indian Statutory Income Tax Rate *	34.94%	34.94%
Estimated Income Tax Expenses	**550**	333
Tax effect of adjustments to reconcile expected Income Tax expenses to reported Income Tax Expenses:		
Income Exempt from Tax	(1)	(21)
Long-Term Capital (Gains)/Loss	(3)	(9)
Expenses not deductible in determining Taxable Profit	28	45
Deferred Tax Adjustment for earlier years	7	(2)
Current Tax Adjustment for earlier years	-	(14)
	31	(1)
Income Tax Expenses recognised in the Statement of Profit and Loss	**581**	332

*Applicable Indian statutory tax rate for the years ended 31/03/2021 and 31/03/2020 is 34.944%. Further, the Company is required to pay Minimum Alternate Tax u/s 115JB of Income Tax Act, 1961.

(c) Income Tax expenses recognised in OCI

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Remeasurement of Defined Benefit Obligations	20	(28)
Change in Fair Value of Debt and Unquoted Equity Instruments designated at FVTOCI	(3)	2
Cash Flow Hedges and Others	(323)	(376)
	(306)	**(402)**

(d) Income Tax expense recognised directly in Equity

Basis adjustment on Cash flow hedges & others	(1)	8
	(1)	**8**

B Deferred Tax Assets and Liabilities

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Deferred Tax Assets		
Deferred Tax Assets	2,105	2,518
MAT Credit Entitlement	2,436	2,153
	4,541	**4,671**
Deferred Tax Liabilities		
Deferred Tax Liabilities	(6,507)	(6,646)
	(6,507)	**(6,646)**
Net Deferred Tax Assets/(Liabilities)	**(1,966)**	**(1,975)**

a) Movement in Deferred Tax Assets and (Liabilities) as of and during the year ended.

(₹ in Crore)

	Opening Balance 01/04/2020	Recognised in the Statement of Profit and Loss	Recognised in Other Comprehensive Income	Deferred tax on basis adjustment	As at 31/03/2021
Deferred Income Tax Assets					
Provisions deductible for tax purposes in future period	465	16	-	-	481
Tax Losses/Benefits carry forwards, Net #	1,735	(720)	-	-	1,015
Retirement Benefits and Compensated Absences	102	(11)	(20)	-	71
Deferred Income	216	(9)	-	-	207
Cash flow hedges	-	-	315	1	316
MAT Credit Entitlement	2,153	283	-	-	2,436
Others	15	15			
	4,671	(426)	295	1	4,541
Deferred Income Tax Liabilities					
PP&E Depreciation and Intangible Amortisation	(6,424)	(46)	-	-	(6,470)
Cash Flow Hedges	(8)	-	8	-	-
Fair Value Measurements of Financial Instruments	(116)	76	3	-	(37)
Others	(98)	98	-	-	-
	(6,646)	128	11	-	(6,507)
Net Deferred Tax Assets/(Liabilities)	**(1,975)**	**(298)**	**306**	**1**	**(1,966)**

(₹ in Crore)

	Balance as on 31/03/2019	Adjustment on adoption of Ind AS 116	As at 01/04/2019	Recognised in the Statement of Profit and Loss	Recognised in Other Comprehensive Income	Deferred tax on basis adjustment	As at 31/03/2020
Deferred Income Tax Assets							
Provisions deductible for tax purposes in future period	367	95	462	3	-	-	465
Tax Losses/Benefits carry forwards, Net #	1,792	-	1,792	(57)	-	-	1,735
Retirement Benefits and Compensated Absences	71	-	71	3	28	-	102
Deferred Income	223	-	223	(7)	-	-	216
MAT Credit Entitlement	2,003	-	2,003	150	-	-	2,153
	4,456	95	4,551	92	28	-	4,671
Deferred Income Tax Liabilities							
PP&E Depreciation and Intangible Amortisation	(6,163)	(90)	(6,253)	(171)	-	-	(6,424)
Cash Flow Hedges	(376)	-	(376)	-	376	(8)	(8)
Fair Value Measurements of Financial Instruments	(27)	-	(27)	(87)	(2)	-	(116)
Others	(69)	-	(69)	(29)	-	-	(98)
	(6,635)	(90)	(6,725)	(287)	374	(8)	(6,646)
Net Deferred Tax Assets/ (Liabilities)	**(2,179)**	**5**	**(2,174)**	**(195)**	**402**	**(8)**	**(1,975)**

Tax Losses/Benefits carry forwards represents deferred income tax asset on unabsorbed depreciation carried forward under the Income Tax Act, for which there is no expiry period.

(b) Deferred tax assets and deferred tax liabilities have been offset wherever the Company has a legally enforceable right to set-off current tax assets against current tax liabilities and where the deferred tax assets and deferred tax liabilities relates to income tax levied by the same taxation authorities.

(c) The Company has not recognised deferred tax assets on following long term capital losses as presently it is not probable of recovery.

(₹ in Crore)

Description	AY@	Amount	Tax impact	Year of Expiry
Long Term Capital Loss	2013-14	31	7	AY 2021-22
Long Term Capital Loss	2015-16	29	7	AY 2023-24
Long Term Capital Loss	2016-17	34	8	AY 2024-25
Long Term Capital Loss	2017-18	901	210	AY 2025-26
		995	**232**	

@ Assessment Year (AY).

(d) The Company has not recognised deferred tax asset in respect of deductible temporary differences related to its equity investments measured at FVOCI, subsidiaries and associates as presently it is not probable that future taxable long term capital gain will be available in the foreseeable future to recover such deferred tax assets.

(e) The Taxation Law (Amendments) Ordinance 2019 ('the Ordinance'), provides an option to domestic companies to pay income-tax at a lower rate of 22% (plus applicable surcharge and cess) instead of the normal rate of 30% (plus applicable surcharge and cess) depending on the conditions specified in this behalf under section 115BAA of the Income Tax Act, 1961. A domestic company can avail of the lower tax rate only if it opts for not availing of certain exemptions or incentives specified in this behalf in the Ordinance. There is no time limit prescribed under the above to choose the option of lower tax rate under section 115BAA, however, once chosen it is irreversible.The Company is having carried forward unabsorbed depreciation, accumulated MAT credit and tax incentives to be availed/adjusted against future taxable profits. Based on the projections prepared by the management, including its plan for future capital expenditure for capacity enhancement, the Company has determined that exercising the option of lower rate will be beneficial only from April 01, 2037. Company has assessed that the net deferred tax liability as at March 31, 2021 would get reversed within the period for which Company is expected to continue to be in the existing tax regime. Accordingly, the Company has not made any adjustments to reverse its deferred tax liability balances as at March 31, 2021.

C Income Tax Assets and Liabilities with Tax Authorities

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Income Tax Assets		
Non-Current Tax Assets (Net)	-	325
	-	325
Income Tax Liabilities (Net)		
Current Tax Liabilities (Net)	1,168	997
	1,168	997

The Company is subject to tax assessments and ongoing proceedings, which are pending before various Tax Appellate Authorities. Management periodically evaluates the positions taken in tax returns with respect to such matters, including unresolved tax disputes, which involves interpretation of applicable tax regulations and judicial precedents. Current tax liability and tax asset balances are presented, after recognising as appropriate, provision for taxes payable and contingencies basis management's assessment of outcome of such ongoing proceedings and amounts that may become payable to the tax authorities. Considering the nature of such estimates and uncertainties involved, the amount of such provisions may change upon final resolution of the matters with tax authorities, refer note 1D

24. Contract Liabilities

Refer Note 1B (X) for accounting policy on Contract Liabilities

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Advance from Customers, (refer note - 26)	136	158
	136	158
Reconciliation of contract liabilities for the periods presented:		
Balance at beginning of the year	158	126
Amount received during the year against which revenue has not been recognized	128	146
Revenue recognized during the year		
a) Contract liabilities at the beginning of the year	(150)	(114)
b) Performance obligations satisfied in previous years	-	-
Others	-	-
Foreign exchange gains and losses	-	-
Balance at end of the year	136	158

25. Other Non Current and Current Liabilities

(₹ in Crore)

	As at			
	31/03/2021		31/03/2020	
	Non-Current	Current	Non-Current	Current
Customer Refund Liability - [(a) & (refer note - 26)]	-	83	-	89
Statutory Dues Payable	-	441	-	256
Deferred Income - (b)	573	21	594	21
Other Payable	36	20	34	24
	609	565	628	390

(a) Customer refund liability are recognised mainly for discount payable to customers.

(b) Represents deferred income in respect of grant related to Export Promotion Capital Goods (EPCG) at Aditya, Mahan and Mouda.

26. Revenue from Operations

Refer Note 1B (X) for accounting policy on Revenue recognition
Refer Note 1B (T) for accounting policy on Accounting for government grants

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Revenue from Contracts with Customers		
Sale of Products - (a)		
Domestic Sales - (b)	26,885	28,539
Export Sales	13,889	11,013
	40,774	39,552
Trade Sales - (b)	1,414	156
Sale of Services - (c)	119	122
	42,307	39,830
Other Operating Revenues - (a) and (d)	394	412
	42,701	40,242

Reconciliation of revenue recognised with contract price:		
Contract Price	43,502	39,554
Adjustments for:		
Refund Liabilities and discounts	(497)	(635)
Hedging Gain/ (Loss)	(607)	896
Others - Provisionally priced contracts	(91)	15
Revenue from Contracts with Customers	42,307	39,830

(a) Sales of Copper products and precious metals are accounted for provisionally, pending finalization of price and quantity. Variations are accounted for in the period of settlement. Final price receivable on sale of above products for which provisional price was not finalized are realigned at year end forward LME/LMBA rate and is being presented as part of other operating revenue. Revenue from subsequent variation in price movement is loss of ₹ 31 Crore (year ended 31/03/2020, loss of ₹ 1 Crore).

(b) Includes nutrient based subsidy of Phosphorus (P) & Potassium (K) arising from sale of Di ammonium phosphate (DAP) ₹ 402 Crore (year ended 31/03/2020 ₹ 234 Crore).

(c) Sale of services predominantly include freight and insurance on exports which are identified as separate performance obligation under Ind AS 115.

(d) Includes Government Grant in the nature of sales related export Incentives and other benefits of ₹ 199 Crore (year ended 31/03/2020 ₹ 318 Crore).

(e) The amount of its revenue from external customers analysed by the country, in which customers are located, are given below:

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
India	28,508	28,782
Outside India		
China	3,026	1,067
Korea	4,266	3,284
USA	405	1,575
Others	6,285	5,205
Total Revenue from customers	**42,490**	**39,913**
Add: Export Incentive and other benefits	211	329
Total Revenue from Operations	**42,701**	**40,242**

(f) Applying the practical expedient as given in Ind AS 115, the Company has not disclosed the remaining performance obligations related disclosures for contracts where revenue recognized corresponds directly with value to the customer of the entity's performance completed to date.

27. Other Income

Refer Note 1B (Y) for accounting policy on Dividend and Interest Income
Refer Note 1B (T) for accounting policy on Accounting for government grants
Refer Note 1B (P) for accounting policy on Accounting for Financial Instruments

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Interest Income, (refer note - 47(A)(c))		
On Non-Current Investments	13	1
On Current Investments	24	36
On Others - (a) and (d)	68	139
Dividend Income, (refer note - 47(A)(c))		
On Non-Current Investments - (b) and (d)	18	56
Rent Income (d)	13	12
Income from Government Grants	21	21
Gain/ (Loss) on Property, Plant and Equipment and Intangible Assets sold/ discarded (Net)	(20)	(16)
Gain/ (Loss) on Financial Investments Measured at FVTPL (Net)		
On sale of Financial Assets	643	96
On change of Fair Value of Financial Assets	(222)	249
Other Non-Operating Income - (c)	92	145
	650	**739**

(a) Interest Income on others includes Nil (year ended 31/03/2020 ₹ 46 Crore) of interest received from Income Tax Department.

(b) Dividend Income on long-term investments includes Nil (year ended 31/03/2020 ₹ 29 Crore) dividend received from subsidiary companies. All dividends from equity investments designated at FVTOCI relate to investments held at the end of the reporting period. There was no dividend income relating to investments derecognised during the reporting period.

(c) Includes gain on modification of borrowings of ₹ 56 Crore (year ended 31/03/2020 ₹ 19 Crore) resulting from change in benchmark interest rate and timing of expected cash flows on term loans.

(d) Refer note - 43, for related party transactions.

28. Cost of Materials Consumed

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Copper Concentrate - (a)	15,451	14,215
Alumina	2,840	3,214
Bauxite	540	573
Caustic Soda	300	508
Calcined Petroleum Coke	1,112	1,469
Copper Anode	1,904	-
Copper Cathodes	3,911	970
Others	1,266	1,636
	27,324	**22,585**

(a) Purchase of copper concentrate is accounted for provisionally pending finalization of contents in the concentrate and price. Variations are accounted for in the period of settlement. Final price payable on purchase of copper concentrate for which provisional price and quantity were not finalized during the year are realigned based on forward LME and LBMA rate. Impact on cost from subsequent variation in price movement for year ended 31/03/2021 was loss of ₹ 160 Crore (year ended 31/03/2020 gain of ₹ 217 Crore).

(b) Refer note 37, for details of freight expenses.

29. Trade Purchases

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Aluminum Rolled Product	126	36
Fertilizer - (a)	928	110
Others - (b)	44	110
	1,098	**256**

(a) During the current year, the Fertilizer plant was shut for regular maintenance. Thus to cater to the domestic demand the Company has imported the fertilizer products i.e. Di Ammonium Phosphate (DAP) and Nitrogen, Phosphorus and Potassium (NPK).

(b) Includes gain on realignment Nil (year ended 31/03/2020 gain ₹ 6 Crore) based on forward LBMA/LME rates for provisionally priced trade purchases.

30. Changes in Inventories of Finished Goods, Work-in-Progress and Stock-in-Trade

(₹ in Crore)

	Opening Inventories as at		Closing Inventories as at		Net Change Year ended	
	01/04/2020	01/04/2019	31/03/2021	31/03/2020	31/03/2021	31/03/2020
Work-in-Progress	4,595	5,340	6,428	4,595	(1,833)	745
Finished Goods	1,337	719	1,448	1,337	(111)	(618)
Stock-in-Trade	127	-	4	127	123	(127)
	6,059	6,059	7,880	6,059	(1,821)	-

Details of inventories under broad heads are given below:

(₹ in Crore)

	Work-in-Progress As at		Finished Goods As at		Stock-in-Trade As at		Total As at	
	31/03/2021	31/03/2020	31/03/2021	31/03/2020	31/03/2021	31/03/2020	31/03/2021	31/03/2020
Alumina	299	342	59	76	-	-	358	418
Aluminium and Aluminium Products	792	883	388	551	2	10	1,182	1,444
Copper and Copper Products	3,507	1,764	987	636	-	6	4,494	2,406
Precious Metals	1,079	824	5	64	-	-	1,084	888
Others - (a)	751	782	9	10	2	111	762	903
	6,428	4,595	1,448	1,337	4	127	7,880	6,059

(a) Others include mainly inventories of own mined coal, anode, soda in process and other materials.

31. Employee Benefits

Refer Note 1B (U) for accounting policy on Employee Benefits
Refer Note 1B (V) for accounting policy on Employee Share-based Payments

A Total employee benefit expenses incurred by the Company during the year as below:

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Salaries and Wages	1,507	1,526
Post-Employment Benefits:		
Gratuity and Other Defined Benefit Plans	64	109
Contribution to Provident Fund and Other Defined Contribution Funds	115	110
Employee Share-Based Payments, (refer note - 42)		
Equity-settled share-based payment	15	27
Cash-settled share-based payment	1	-
Employee Welfare Expenses	156	166
	1,858	1,938
Less: Transferred to Capital Work-in-Progress/ Intangible Assets under development	14	16
	1,844	1,922

(i) The Code on Social Security, 2020 ('Code') relating to employee benefits during employment and postemployment benefits received Presidential assent in September 2020. The Code has been published in the Gazette of India. However, the date on which the Code will come into effect has not been notified. The Company will assess the impact of the Code when it comes into effect and will record any related impact in the period the Code becomes effective.

(ii) The Hon'ble Supreme Court of India ("SC") by their order dated February 28, 2019, in the case of Surya Roshani Limited v/s EPFO, set out the principles based on which allowances paid to the employees should be identifi ed for inclusion in basic wages for the purposes of computation of Provident Fund contribution.

The Company has given effect of the above judgement effective March 1, 2019. This does not have any material impact on the Financial Statements.

B Post-Employment Benefits

The Company provides various benefit plan to its employees. Some of them are defined benefit in nature while some are contributory.

I Defined Benefit Plans:

Major Post retiral defined benefit plans of the Company include Gratuity, Post retirement medical benefit and Provident Fund (to the extent of Company's obligation to fund any shortfall on the yield of the trust's investments over the administered interest rates on an annual basis by Central Provident Fund Organisation of Govt of India). The Company does Actuarial valuation for its identified long term and short term defined benefit plans.

Methodology for actuarial valuation of Defined Benefit Obligations:

The Projected Unit Credit (PUC) actuarial method has been used to assess the plan's liabilities, including those related to death-in-service and incapacity benefits.

Under PUC method a projected accrued benefit is calculated at the beginning of the year and again at the end of the year for each benefit that will accrue for all active members of the plan. The projected accrued benefit is based on the plan's accrual formula and upon service as of the beginning or end of the year, but using a member's final compensation, projected to the age at which the employee is assumed to leave active service. The plan liability is the actuarial present value of the projected accrued benefits for active members.

Defined benefit plans expose the Company to actuarial risks such as: Interest Rate Risk, Salary Risk and Demographic Risk.

i. Interest Rate Risk: While calculating the defined benefit obligation a discount rate based on government bonds yields of matching tenure is used to arrive at the present value of future obligations. If the bond yield falls, the defined benefit obligation will tend to increase and plan assets will decrease.

ii. Salary risk: Higher than expected increases in salary will increase the defined benefit obligation.

iii. Demographic risk: This is the risk of variability of results due to unsystematic nature of decrements that include mortality, withdrawal, disability and retirement. The effect of these decrements on the defined benefit obligations is not straight forward and depends on the combination of salary increase, discount rate and vesting criteria. It is important not to overstate withdrawals because in the financial analysis the retirement benefit of a short career employee typically costs less per year as compared to a long service employee.

A Gratuity Plans

The Company has various schemes (funded/unfunded) for payment of gratuity to all eligible employees calculated at specified number of days (ranging from 15 days to 1 month) of last drawn salary depending upon the tenure of service for each year of completed service subject to minimum service of five years payable at the time of separation upon superannuation or on exit otherwise. These defined benefit gratuity plans are governed by Payment of Gratuity Act, 1972.

(a) Change in Defined Benefit Obligations (DBO)

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
DBO at the beginning of the year	1,094	962
Current service cost	49	52
Interest Cost on the DBO	70	71
Settlement cost/(credit)	4	-
Actuarial (gain)/ loss - experience	(50)	28
Actuarial (gain)/ loss - financial assumption	22	44
Benefits paid directly by Company	(44)	(34)
Benefits paid from plan assets	(32)	(29)
DBO at the end of the year	1,113	1,094

NOTES FORMING PART OF THE STANDALONE FINANCIAL STATEMENTS

(b) Change in Fair Value of Plan Assets

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Fair Value of Plan Assets at the beginning of the year	884	785
Interest Income on plan assets	58	61
Employer's contributions	53	66
Return on plan assets greater/(lesser) than discount rate	21	1
Benefits Paid	(32)	(29)
Fair Value of Plan Assets at the end of the year	**984**	**884**

(c) Development of Net Balance Sheet Position

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
DBO, funded	(1,018)	(1,003)
Fair Value of Plan Assets	984	884
Funded Status{surplus/(deficit)}	(34)	(119)
DBO, unfunded	(95)	(91)
Net defined benefit asset/(liability) recognised in the Balance Sheet	**(129)**	**(210)**

(d) Reconciliation of Net Balance Sheet Position

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Net Defined benefit asset/(Liability)at beginning of the year	(210)	(177)
Service cost	(53)	(52)
Net Interest on net defined benefit liability/(asset)	(12)	(10)
Amount recognised in OCI	49	(71)
Employer's contributions	53	66
Benefit paid directly by Company	44	34
Net Defined benefit asset/(Liability)at the end of the year	**(129)**	**(210)**

(e) Expense recognised during the year

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Current Service cost	49	52
Settlement cost/(credit) - $	4	-
Total Service Cost	**53**	**52**
Net Interest on net defined benefit liability/(asset)	12	10
Net Gratuity Cost	**65**	**62**

(f) Other Comprehensive Income(OCI)

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Actuarial (Gain)/ Loss due to DBO experience	(50)	28
Actuarial (Gain)/ Loss due to DBO assumption changes	22	44
Actuarial (Gain)/ Loss arising during the period	(28)	72
Return on Plan Assets (greater)/less than discount rate	(21)	(1)
Actuarial (Gain)/ Loss recognised in OCI	**(49)**	**71**

(g) Defined Benefit Costs

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Service Cost	53	52
Net Interest on net defined benefit liability/(asset)	12	10
Actuarial (gain)/loss recognised in OCI	(49)	71
Defined Benefit Cost	**16**	**133**

(h) Principal Actuarial Assumptions

	Year ended	
	31/03/2021	31/03/2020
Discount rate (based on the market yields available on Government bonds at the accounting date with a term that matches that of the liabilities)	**6.25%**	**6.50%**
Salary escalation rate	**7.50%**	**7.50%**
Weighted average duration of the defined benefit obligation	**9 years**	**9 years**
	Indian Assured Lives Mortality (2006-08) Ultimate	

(i) Non-Current and Current portion of Defined Benefit Obligations (Refer Note - 23)

	31/03/2021	31/03/2020
Current portion	(3)	(3)
Non-current portion	(126)	(207)
	(129)	**(210)**

(j) Sensitivity analysis

Sensitivity analysis are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be co-related. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions, the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the defined benefit liability recognised in the balance sheet.

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Discount Rate		
Effect on DBO due to 1% increase in discount rate	(85)	(84)
Effect on DBO due to 1% decrease in discount rate	98	97
Salary Escalation Rate		
Effect on DBO due to 1% increase in salary escalation rate	96	95
Effect on DBO due to 1% decrease in salary escalation rate	(85)	(84)

(k) The Expected Maturity Analysis of Undiscounted Gratuity is as follows:

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Within 1 year	57	61
From 1 year to 2 Year	88	86
From 2 year to 3 Year	97	91
From 3 year to 4 Year	95	100
From 4 year to 5 Year	104	98
From 5 year to 10 Year	577	580

(l) Composition of Plan Assets

Major categories of Plan Assets are as under:

Cash & Bank Balances	1.57%	1.83%
Scheme of insurance - Conventional product	0.21%	0.22%
Scheme of insurance - ULIP product	98.23%	97.95%
	100.00%	100.00%

Above Investment in Plan Assets are unquoted

$ Settlement cost/(credit) during the year has been accounted under Exceptional Expenses as it pertains to Voluntary Retirement Scheme (VRS) granted at our Mines, Gare Palma (refer note - 38)

(m) Expected Contributions to post employment benefit plan of Gratuity for the year ending 31st March, 2022 are ₹ 63 Crore.

B Post Retirement Medical Benefit

This is a defined benefit plan where the Company provides post retirement medical benefit to its certain retired employees. The scheme involves reimbursement of expenses towards medical treatment of self and dependents. The amount charged to the statement Profit and Loss during the year is ₹ 0.34 Crore (year ended 31/03/2020 ₹ 0.36 Crore) and amount of actuarial (gain)/ loss recognised in Other Comprehensive Income during the year is ₹ (1) Crore (year ended 31/03/2020 ₹ 4 Crore). The obligation with respect to said scheme as at 31/03/2021 ₹ 5 Crore (year ended 31/03/2020 ₹ 5 Crore) .

II Defined Contribution Plans

A Pension

It is a contributory benefit plan where the Company contributes a certain percentage of salary for all eligible employees in the managerial cadre towards Superannuation Funds with option to put certain portion in National Pension Scheme (NPS) and/or in funds managed by Birla Sunlife Insurance Company to be converted to annuity of Life Insurance Corporation of India at retirement. Junior Pension Plan provided to certain employees is in the nature of defined benefit plan which provides an annuity in the form of pension amount at retirement. Refer note 43 for details of pension benefit provided to erstwhile Managing Director. The amount charged to statement of Profit and Loss during the year is ₹ 18 Crore (year ended 31/03/2020 ₹ 60 Crore). Amount of actuarial (gain)/ loss recognised in Other Comprehensive Income during the year is ₹ 1 Crore (year ended 31/03/2020 ₹ 6 Crore). The obligation with respect to these schemes as at 31/03/2021 ₹ 47 Crore (year ended 31/03/2020 ₹ 47 Crore).

B Provident Fund

The Company's contribution towards Provident Fund managed either by approved trusts or by the Central Government is debited to the Statement of Profit and Loss. In respect of provident fund management by the approved trust, the Company has an obligation to fund any shortfall on the yield of the trust's investments over the administered interest rates on an annual basis. The Company also contributes to Coal Mines Provident Fund (CMPF) in respect of employees working in coal mines. The amount debited to Statement of Profit and Loss during the year was ₹ 100 Crore (year ended 31/03/2020 ₹ 97 Crore). Based on actuarial valuation, the Company has recognised obligation of ₹ 2 Crore as at 31/03/2021 (year ended 31/03/2020 ₹ 8 Crore) towards shortfall on the yield of the trust's investments over the administered interest rates. Amount of actuarial (gain)/ loss recognised in Other Comprehensive Income during the year is ₹ (8) Crore (year ended 31/03/2020 ₹ (2) Crore).

Certain investments made by Company's Provident Fund Trust ('AAA' rated when the investment was done) became impaired previous year. The Trust has recorded the loss in its books for the year ended March 31, 2020. The Company is obligated to make good such losses to the trust and as such has compensated the trust by ₹ 73 crore. The amount has been accounted for in Other Comprehensive Income.

Sensitivity Analysis :-

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Provident Fund		
Discount Rate		
Effect on DBO due to 1% increase in discount rate	(3)	(3)
Effect on DBO due to 1% decrease in discount rate	4	4
Pension		
Discount Rate		
Effect on DBO due to 1% increase in discount rate	(0.1)	(0.1)
Effect on DBO due to 1% decrease in discount rate	0.1	0.1

Assumption use in determining the present value obligation of the interest rate guarantee under the Deterministic Approach:

	Year ended	
	31/03/2021	31/03/2020
Discount rate	6.25%	6.50%
Expected EPFO (Employees' Provident Fund Organisation) Return	8.50%	8.50%

III Other Employee Benefit plans

A Leave Obligation

The leave obligation cover the Company's liability for earned and sick leave. The entire amount of the provision of ₹ 257 Crore (year ended 31/03/2020 ₹ 254 Crore) is presented as current, since the company does not have an unconditional right to defer settlement for these obligations. Expected amount towards settlement of Leave for the next 12 months are ₹ 36 Crore (31/03/2020 ₹ 37 Crore).

32 Power and Fuel

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Power and Fuel Expenses - (a)	5,668	6,989
Less: Transferred to Capital Work-in-Progress/ Intangible Assets under development	-	-
	5,668	6,989

(a) Refer note 37, for details of freight expenses.

33. Finance Costs

Refer Note 1B (S) for accounting policy on Borrowing cost

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Interest Expenses on Financial Liabilities not at FVTPL - (a) and (b)	1,451	1,619
(Gain)/ Loss on Foreign Currency Borrowings (Net)	(14)	18
Interest Expenses for Leasing arrangements	25	25
Other Borrowing Costs - (c)	22	18
	1,484	1,680
Less: Transferred to Capital Work-in-Progress/ Intangible Assets under development (d)	(15)	(1)
	1,469	1,679

(a) Interest expenses include ₹ 6.48 Crore (year ended 31/03/2020 ₹ 0.16 Crore) paid to Income Tax Department.

(b) Includes difference between effective interest rate and contracted interest rate of ₹ 49 Crore (year ended 31/03/2020 ₹ 41 Crore) mainly from amortisation of debt issuance cost.

(c) Mainly includes unwinding of discount on Enterprise Social Commitment and Asset Retirement Obligation.

(d) The Capitalisation rate used to determine the amount of borrowing costs to be capitalised is the weighted average interest rate applicable to general borrowings. Capitalisation rate for year ended 31/03/2021 is 6.58% p.a.

34. Depreciation and Amortisation Expenses

Refer Note 1B (D) for accounting policy on Property, Plant and Equipment
Refer Note 1B (E) for accounting policy on Investment properties
Refer Note 1B (F) for accounting policy on Intangible Assets
Refer Note 1B (G) for accounting policy on Stripping cost
Refer Note 1B (L) for accounting policy on Leases

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Depreciation on Property, Plant and Equipment	1,590	1,583
Depreciation on Right of Use Assets	80	72
Depreciation on Investment Properties	1	-
Amortisation of Intangible Assets	44	58
	1,715	1,713
Less: Transferred to Capital Work-in-Progress/ Intangible Assets under development	(7)	(5)
	1,708	1,708

35. Impairment Loss on Non-Current Assets

Refer Note 1B (I) for accounting policy on Impairment of Non-Current Assets

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Impairment Loss on Property, Plant and Equipment and Intangible assets (a)	115	-
Impairment Loss - Asset Held for Sale (b)	25	-
	140	-

(a) Operation of certain mining assets of the Company have become unviable due to high cost of production and other operational issues. As a result the Company has recognized impairment in respect of these mining assets amounting to ₹ 115 Crores (Property, Plant and Equipement ₹ 71 Crore and Intangible assets ₹ 44 Crore).

(b) The Company has recognized impairment of ₹ 25 Crores on certain other assets classified as "Non Current Asset Held for Sale" based on their future utilisation plan.

36. Impairment Loss on Financial Assets (Net)

Refer Note 1B (P) for accounting policy on Accounting for Financial Instruments

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Provision for Doubtful Debts, Loans & Advances / (written back) (Net)	(7)	3
Bad Debts Loans & Advances / (written back) (Net)	-	1
	(7)	4

37. Other Expenses

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
Consumption of Stores and Spares	870	975
Repairs to Buildings	87	100
Repairs to Machinery	708	614
Rates and Taxes	13	21
Equipment and Material Handling Expenses	269	297
Lease Expenses - (c)	90	127
Insurance Charges	101	79
Payment to Auditors - (a)	5	4
Research and Development	23	29
Freight and Forwarding Expenses (Net) - (b) and (d)	808	773
Donation - (e)	6	45
Directors' Fees and Commission	6	3
(Gain)/Loss on Foreign Currency Transactions (Net)	(54)	81
(Gain)/Loss in Change in Fair Value of Derivatives (Net)	44	(55)
Miscellaneous Expenses - (f)	1,413	1,743
	4,389	4,836
Less: Transferred to Capital Work-in-Progress/ Intangible Assets under development	(28)	(14)
	4,361	4,822

(a) Details to Payment to Auditors are given below:

Statutory Auditors:		
Statutory Audit Fees^	4	2
Other Services	1	2
Reimbursement of Out-of-Pocket Expenses	-	-
Cost Auditors:		
Cost Audit Fee and Expenses	-	-
	5	4

^ Statutory audit fees includes ₹ 1 Crore towards additional fees for scope increase related to previous periods

(b) Freight and forwarding expenses include net of freight subsidy of ₹ 54 Crore (year ended 31/03/2020 ₹ 25 Crore) received on sale of DAP.

(c) Lease expense on account of Short Term Lease, Variable Lease and Low Value Lease on Low value assets are as follows

(₹ in Crore)

Particulars	Year ended	
	31/03/2021	31/03/2020
Short Term Leases	50	79
Variable lease	40	47
Leases of low value assets	-	1
Total	**90**	**127**

(d) Freight expenses amounting to ₹ 152 Crore (year ended 31/03/2020 of ₹ 156 Crore) is included in Cost material consumed and ₹ 25 Crore (year ended 31/03/2020 of ₹ 79 Crore) is included in Power and Fuel expense. (refer note 28 and 32).

(e) Donation includes Nil (year ended 31/03/2020 of ₹ 29 Crore) paid towards political donation, out of which Nil (year ended 31/03/2020 of ₹ 10 Crore) paid to AB General Electoral Trust (erstwhile General Electoral Trust) and ₹ Nil (year ended 31/03/2020 ₹ 19 Crore) through Electoral Bond previous year.

(f) Miscellaneous expenses include ₹ 0.04 Crore (year ended 31/03/2020 ₹ 0.01 Crore) paid to a firm of solicitors in which one of the Director of the Company is a partner.

38. Exceptional Income/ (Expenses) (Net)

Refer Note 1B (Z) for accounting policy on Exceptional items

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Exceptional Income	127	25
Exceptional (Expenses)	(120)	(89)
	7	**(64)**

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Details of Exceptional Income/ (Expenses) as follows:		
Exceptional Income:		
Renewable Energy Certificates (REC) recognised during the period subsequent to approval received from Odisha Electricity Regulatory Commission (OERC) permitting adjustment of excess REC purchased during earlier years against future Renewable Power Obligation (RPO) and reversal of excess Renewal Power Obligation (RPO) provision related to FY20 subsequent to Madhya Pradesh Electricity Regulatory Commission (MPERC) order.	127	-
Profit on sale of aluminium foil manufacturing unit situated at Kollur, Andhra Pradesh on a slump sale basis.	-	25
Total	**127**	**25**
Exceptional Expenses:		
Exgratia amount paid to the employees for their contribution during COVID 19 pandemic.	(48)	-
Employee severance cost comprising voluntary retirement scheme offered to employees pursuant to the restructuring of a mining operation of the Company.	(33)	-
Provision related to Additional Surcharge (ASC) and Cross Subsidy Surcharge (CSS) levied on the Company due to failure of the captive power producer (from whom the Company sourced power in earlier years) to comply with the captive status criteria under Central Electricity Act, 2003.	(39)	-
Expenses incurred towards restoration of Red Mud Pond and other related expenses at alumina refinery at Muri, Jharkhand.	-	(89)
Total	**(120)**	**(89)**

39. Other Comprehensive Income/ (Loss)

The disaggregation of changes to other comprehensive income (OCI) by each class is given below:

(₹ in Crore)

	Year ended					
	31/03/2021			31/03/2020		
	Gross	Tax	Net	Gross	Tax	Net
(i) Items that will not be reclassified to Statement of Profit and Loss						
Remeasurement of Defined Benefit Obligation (refer note - 31)	57	(20)	37	(152)	28	(124)
Change in Fair Value of Investment in Associates as FVTOCI	94	-	94	4	-	4
Change in Fair Value of Equity Instruments as FVTOCI	4,257	-	4,257	(2,586)	-	(2,586)
	4,408	(20)	4,388	(2,734)	28	(2,706)
(ii) Items that will be reclassified to Statement of Profit and Loss						
Change in Fair Value of Debt Instruments designated as FVTOCI	(9)	3	(6)	5	(2)	3
Effective portion of Cash Flow Hedges	(757)	264	(493)	(484)	170	(314)
Cost of Hedging Reserve	(168)	59	(109)	(589)	206	(383)
	(934)	326	(608)	(1,068)	374	(694)
Total Other Comprehensive Income	**3,474**	**306**	**3,780**	**(3,802)**	**402**	**(3,400)**

40. Earnings per Share (EPS)

(₹ in Crore)

	Year ended	
	31/03/2021	31/03/2020
Profit/ (Loss) attributable to Equity Shareholders	993	620
Weighted average numbers of equity shares for calculation of EPS:		
Weighted-average numbers of equity shares for Basic EPS	2,224,224,042	2,223,957,744
Dilutive impact of Employee Stock Option Scheme	1,172,360	991,162
Weighted-average numbers of equity shares for Diluted EPS	2,225,396,402	2,224,948,906
Face Value per Equity Share (₹)	1.00	1.00
Earnings per Share		
Basic (₹)	4.46	2.79
Diluted (₹)	4.46	2.79

Treasury shares are excluded from weighted-average numbers of equity shares used as a denominator in the calculation of EPS.

4,295,432 shares (year ended 31/03/2020 4,448,494 Shares) options granted under Employee Stock option scheme but were not included in the calculation of diluted earnings per share because they are antidilutive for the period. Options can potentially dilute basic earnings per share in the future depending on future share price of the Company.

Stock options granted to the employees under various ESOP schemes are considered to be potential equity shares. They have been included in the determination of diluted earnings per share to the extent they are dilutive. The stock options have not been included in the determination of basic earnings per share. For details relating to stock options, refer note 42.

41. Segment Reporting

The Company has presented segment information in its Consolidated Financial Statements, which are part of the same annual report. Accordingly, in terms of provisions of Accounting Standard on Segment Reporting (Ind AS 108), no disclosure related to the segment are presented in the Standalone Financial Statements.

42. Employee Share-based Payments

Refer Note 1B (V) for accounting policy on Employee Share-based Payments

The Company has formulated employee share-based payment schemes with objective to attract and retain talent and align the interest of employees with the Company as well as to motivate them to contribute to its growth and profitability. The Company views employee stock options as instruments that would enable the employees to share the value they create for the Company in the years to come. At present, following employee share-based payment schemes are in operation, details of which are given below:

(I) Employee Stock Option Scheme 2006 ("ESOS 2006"):

The shareholders of the Company has approved on 23/01/2007 an Employee Stock Option Scheme 2006 ("ESOS 2006"), under which the Company may grant up to 3,475,000 stock options to its permanent employees in the management cadre, whether working in India or out of India, including Managing and the Whole Time Directors of the Company, in one or more tranches. The ESOS 2006 is administrated by the Nomination and Remuneration Committee of the Board of Directors of the Company ("the Committee"). Each stock option, when exercised, would be converted into one fully paid-up equity share of ₹ 1/- each of the Company. The stock options will vest in 4 equal annual instalments after completion of one year of service from the date of grant. The exercise price shall be average price of the equity shares of the Company in the immediate preceding seven day period on the date prior to the date on which the ESOS compensation committee finalises the specific numbers of Options to be granted to the employees discounted by such percentage not exceeding 30 % (thirty percent) to be determined by ESOS Compensation Committee in the best interest of the various stake holders in the prevailing market conditions. The maximum period of exercise is 5 years from the date of vesting and these stock options do not carry rights to dividends or voting rights till the date of exercise. Further, forfeited/ expired stock options are also available for grant. Further, on 23/09/2011 the ESOS 2006 has been partially modified and by which the Company may grant 6,475,000 stock options to its eligible employees.

Under the ESOS 2006, till 31/03/2021 the Committee has granted 4,328,159 stock options (31/03/2020: 4,328,159 stock options) to its eligible employees out of which 1,819,941 stock options (31/03/2020: 1,819,941 stock options) has been forfeited/ expired and are available for grant as per term of the Scheme.

A summary of movement of the stock options and weighted average exercise price (WAEP) is given below:

	As at			
	31/03/2021		31/03/2020	
	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	456,956	118.73	816,371	118.71
Granted during the year	-	-	-	-
Forfeited during the year	-	-	-	-
Exercised during the year	(65,652)	118.73	(359,415)	118.69
Expired during the year	-	-	-	-
Outstanding at year end	391,304	118.73	456,956	118.73
Vested and Exercisable at year end	391,304	118.73	456,956	118.73

Under ESOS 2006, as at 31/03/2021 exercise prices for stock options outstanding was ₹ 118.73 (31/03/2020: ₹ 118.73) whereas the weighted average remaining contractual life of the stock options outstanding was 1.02 years (31/03/2020: 1.81 years).

The weighted average share price at the date of exercise of ESOS 2006 was ₹ 173.25 per share (31/03/2020 ₹ 179.07 per share).

(II) Employee Stock Option Scheme 2013 ("ESOS 2013"):

The shareholders of the Company has approved on 10/09/2013 an Employee Stock Option Scheme 2013 ("ESOS 2013"), under which the Company may grant up to 5,462,000 Options (comprising of Stock Options and/ or Restricted Stock Units (RSU)) to the permanent employees in the management cadre and Managing and Whole time Directors of the Company and its subsidiary companies in India and abroad, in one or more tranches. The ESOS 2013 is administered by the Nomination and Remuneration Committee of the Board of Directors of the Company ("the Committee"). The stock options exercise price would be determined by the Committee, whereas the RSUs exercise price shall be the face value of the equity shares of the Company as at the date of grant of RSUs. Each stock option and each RSU entitles the holders to apply for and be allotted one fully paid-up equity share of ₹ 1/- each of the Company upon payment of exercise price during exercise period. The stock options will vest in 4 equal annual instalments after completion of one year of the services from the date of grant, whereas RSU will vest upon completion of three years of services from the date of grant. The maximum period of exercise is 5 years from the date of vesting and these stock option/ RSU do not carry rights to dividends or voting rights till the date of exercise. Further, forfeited/ expired stock options and RSUs are also available for grant.

In terms of ESOS 2013, till 31/03/2021 the Committee has granted 2,250,754 stock options and 2,252,254 RSUs (31/03/2020: 2,250,754 stock options and 2,252,254 RSUs) to the eligible employees of the Company and some of its subsidiary companies. Further, 296,996 stock options and 202,063 RSUs (31/03/2020: 216,409 stock options and 193,287 RSUs) has been forfeited/ expired and are available for grant as per term of the Scheme.

A summary of movement of stock options and RSUs and weighted average exercise price (WAEP) is given below:

	As at							
	31/03/2021				31/03/2020			
	Stock Options		RSUs		Stock Options		RSUs	
	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	415,944	124.82	235,718	1.00	601,270	121.89	312,937	1.00
Granted during the year	-	-	-	-	-	-	-	-
Re-instated during the year	-	-	-	-	41,722	119.45	55,667	1.00
Forfeited during the year	(37,086)	144.19	(8,776)	1.00	(17,541)	119.45	-	-
Exercised during the year	(224,657)	119.02	(171,251)	1.00	(200,141)	115.37	(132,886)	1.00
Expired during the year	(43,501)	119.45	-	-	(9,366)	119.45	-	-
Outstanding at year end	110,700	132.68	55,691	1.00	415,944	124.82	235,718	1.00
Vested and Exercisable at year end	110,700	132.68	55,691	1.00	396,712	122.82	235,718	1.00

Under ESOS 2013, the range of exercise prices for stock options outstanding as at 31/03/2021 was ₹ 119.45 to ₹ 167.15 (31/03/2020: ₹ 73.60 to ₹ 167.15) whereas exercise price in case of RSUs was ₹ 1.00 (31/03/2020: ₹ 1.00). The weighted average remaining contractual life for the stock options and RSUs outstanding as at 31/03/2021 was 1.51 years and 2.54 years, respectively (31/03/2020: 2.30 years and 2.57 years, respectively).

The weighted average share price at the date of exercise of ESOS 2013 was ₹ 220.69 per share (31/03/2020 ₹ 189.67 per share).

(III) Employee Stock Option Scheme 2018 ("ESOS 2018"):

The shareholders of the Company has approved on 21/09/2018 an Employee Stock Option Scheme 2018 ("ESOS 2018"), formulated by the company, under which the Company may grant not more than 13,957,302 [Stock Options and Restricted Stock Units('RSU')] to its permanent employees of the Company in management cadre including Managing and the Wholetime Director of the Company and its subsidiary companies in India and abroad, in one or more tranches. The ESOS 2018 is administered by the Nomination and Remuneration Committee of the Board of Directors of the Company ("the Committee") and the Hindalco Employees Welfare Trust ("Trust"). The Stock options exercise price would be determined by the Committee whereas the RSU exercise price shall be the face value of the equity shares of the company as at the date of grant of RSUs. Each stock option and each RSU entitles the holders to apply for and be allotted one fully paid-up equity share of Re. 1/- each of the Company upon payment of exercise price during the exercise period. The stock options will vest in 4 equal annual instalments after completion of one year of the services from the date of grant, whereas RSU will vest upon completion of three years of services from the date of grant. The maximum period of exercise is 5 years from the date of vesting and these stock options/RSUs do not carry rights to dividends or voting rights till the date of exercise. Further, forfeited/expired stock options and RSUs are also available for grant.

In terms of ESOS 2018, till 31/03/2021 the Committee has granted 5,189,519 stock options and 1,368,979 RSUs (31/03/2020: 4,607,279 stock options and 1,348,492 RSUs) to the eligible employees of the Company and some of its subsidiary companies. A summary of movement of stock options and RSUs and weighted average exercise price (WAEP) is given below:

	As at							
	31/03/2021				31/03/2020			
	Stock Options		RSUs		Stock Options		RSUs	
	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	4,448,494	217.95	1,297,506	1.00	4,299,563	218.75	1,276,137	1.00
Granted during the year	582,240	278.05	20,487	1.00	307,716	207.21	72,355	1.00
Forfeited during the year	(692,325)	218.31	(38,675)	1.00	(158,785)	218.80	(50,986)	1.00
Exercised during the year	(60,707)	218.80	-	-	-	-	-	-
Expired during the year	-	-	-	-	-	-	-	-
Outstanding at year end	4,277,702	226.06	1,279,318	1.00	4,448,494	217.95	1,297,506	1.00
Vested and Exercisable at year end	1,565,967	218.60	46,058	1.00	1,063,724	218.74	-	-

Under ESOS 2018, the range of exercise prices for stock options outstanding as at 31/03/2021 was ₹ 159.30 to ₹ 278.05 (31/03/2020 was ₹ 159.30 to ₹ 218.80) whereas exercise price in case of RSUs was ₹ 1 (31/03/2020: ₹ 1.00). The weighted average remaining contractual life for the stock options and RSUs outstanding as at 31/03/2021 was 5.43 years and 5.84 years, respectively (31/03/2020 was 6.26 years and 6.81 years respectively).

The weighted average share price at the date of exercise of ESOS 2018 was ₹ 332.87 per share.

The fair values at grant date of stock options granted during the year ended 31/03/2021 was ₹ 144.57 to ₹ 181.09 (31/03/2020 was ₹ 53.05 to ₹ 97.09) and fair values in case of RSUs was ₹ 269.56 (31/03/2020 was ₹ 150.68 to ₹ 205.48, respectively. The fair valuation has been carried out by an independent valuer by applying Black and Scholes Model. The inputs to the model include the exercise price, the term of option, the share price at grant date and the expected volatility, expected dividends and the risk free rate of interest for terms of options.

The details of options granted, the key assumptions for Fair Value on the date of grant are as under :

	FY 2020-21		
	Tranche V		Tranche VI
	Stock Option	RSU	Stock Option
Grant date	10/02/2021	10/02/2021	10/02/2021
Exercise price (₹)	278.05	1.00	278.05
Expected terms of options granted (years)	4.43 to 7.43 years	8 years	4.43 years
Share price on grant date (₹)	279.40	279.40	279.40
Expected volatility (%)	59.50%	59.50%	59.50%
Expected dividend (%)	0.36%	0.36%	0.36%
Risk free interest rate (%)	5.46% - 6.17%	6.27%	5.46%

	FY 2019-20			
	Tranche III		Tranche IV	
	Stock Option	RSU	Stock Option	RSU
Grant date	27/12/2019	27/12/2019	04/03/2020	04/03/2020
Exercise price (₹)	215.00	1.00	159.30	1.00
Expected terms of options granted (years)	4.43 to 7.43 years	8 years	4.43 to 7.43 years	8 years
Share price on grant date (₹)	215.45	215.45	160.60	160.6
Expected volatility (%)	27.95%	27.95%	30.73%	30.73%
Expected dividend (%)	0.56%	0.56%	0.75%	0.75%
Risk free interest rate (%)	6.44% - 6.84%	6.84%	5.62% - 6.39%	6.43%

The expected volatility was determined based on the historical share price volatility over the past period depending on life of the options granted which is indicative of future periods and which may not necessarily be the actual outcome.

(IV) Stock Appreciation Rights ('SAR 2013'):

The Company had granted 956,522 Share Appreciation Rights ("SAR 2013 ") to its eligible employee to be vested in 4 equal annual instalments after completion of one year of the service from the date of grant (i.e. 09/10/2013). The SAR 2013 is administered by the Nomination and Remuneration Committee of the Board of Directors of the Company ("the Committee"). The SAR 2013 have performance linked vesting conditions which are decided by the committee and are cash settled. The options shall lapse in case of performance linked vesting conditions are not met. The Exercise price of the SAR is ₹ 118.73. The SAR can be exercised within 3 years from the date of vesting or within 6 years from the date of grant, whichever is earlier.

A summary of movement of SAR and weighted average exercise price (WAEP) is given below:

	As at 31/03/2021		As at 31/03/2020	
	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	-	-	478,261	118.73
Granted during the year	-	-	-	-
Forfeited during the year	-	-	-	-
Exercised during the year	-	-	(478,261)	118.73
Expired during the year	-	-	-	-
Outstanding at year end	-	-	-	-
Vested and Exercisable at year end	-	-	-	-

(V) Stock Appreciation Rights ('SAR 2018'):

The Company till 31/03/2021, has granted 95,815 Option SAR and 20,514 RSU SAR (31/03/2020: 44,668 Option SAR and 11,333 RSU SAR)under the Share Appreciation Rights Scheme 2018 ("SAR 2018") to its eligible employees. Option SAR to be vested in 4 equal annual instalments after completion of one year of the service from the date of grant and RSU SAR will vest upon completion of three years of services from the date of grant. The SAR 2018 is administered by the Nomination and Remuneration Committee of the Board of Directors of the Company ("the Committee"). The SAR 2018 have performance linked vesting conditions which are decided by the committee and are cash settled. The options shall lapse in case of performance linked vesting conditions are not met. The range of exercise price of the Option SAR is ₹ 159.30 to ₹ 278.05 and RSU SAR is ₹ 1 (31/03/2020: Option SAR is ₹ 218.80 and RSU SAR is ₹ 1).

A summary of movement of SAR and weighted average exercise price (WAEP) is given below:

	As at 31/03/2021				As at 31/03/2020			
	Option SAR		RSU SAR		Option SAR		RSU SAR	
	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)	Number	WAEP (₹)
Outstanding at beginning of the year	44,668	218.80	11,333	1.00	-	-	-	-
Granted during the year	51,147	203.79	9,181	1.00	44,668	218.80	11,333	1.00
Forfeited during the year	(19,163)	193.97	-	-	-	-	-	-
Exercised during the year	-	-	-	-	-	-	-	-
Expired during the year	-	-	-	-	-	-	-	-
Outstanding at year end	76,652	214.99	20,514	1.00	44,668	218.80	11,333	1.00
Vested and Exercisable at year end	11,167	218.80	-	-	11,167	218.80	-	-

The fair values per Option SAR as at 31/03/2021 was ₹ 144.97 to ₹ 232.47 (31/03/2020 ₹ 6.62 to ₹ 19.87) and for RSU SAR as at 31/03/2021 was ₹ 321.21 to ₹ 322.35 (31/03/2020 ₹ 89.14 to ₹ 89.46). The fair value has been carried out by an independent valuer by applying Black and Scholes Model. The inputs to the model include the exercise price, the term of option, the share price at grant date and the expected volatility, expected dividends and the risk free rate of interest. The assumptions used for fair valuation for Option SAR and RSU SAR are given below:

	Year ended 31/03/2021					
Grant date	26/03/2019	09/08/2019	09/08/2019	12/06/2020	12/06/2020	10/02/2021
Valuation Date	31/03/2021	31/03/2021	31/03/2021	31/03/2021	31/03/2021	31/03/2021
Exercise price (₹)	1.00	218.80	1.00	159.30	1.00	278.05
Expected volatility (%)	50.90%	50.90%	50.90%	50.90%	50.90%	50.90%
Expected dividend (%)	0.31%	0.31%	0.31%	0.31%	0.31%	0.31%
Risk Free interest rate (%)	5.45%	4.27% - 5.70%	5.34%	5.43% - 6.05%	5.45% - 5.78%	5.41%

	Year ended 31/03/2020		
Grant date	09/08/2019	09/08/2019	26/03/2019
Valuation Date	31/03/2020	31/03/2020	31/03/2020
Exercise price (₹)	218.80	1.00	1.00
Expected volatility (%)	41.65%	41.65%	41.65%
Expected dividend (%)	1.25%	1.25%	1.25%
Risk Free interest rate (%)	5.29% - 6.09%	6.09%	6.31%

The weighted average remaining contractual life for the Option SAR as at 31/03/2021 is 1.69 to 5.92 years (31/03/2020: 2.70 to 5.70 years) and RSU SAR as at 31/03/2021 is 3.70 to 4.92 years (31/03/2020: 4.70 to 4.99 years).

The total intrinsic value at the end of the year of the vested Option SAR and RSU SAR is ₹ 0.12 crore (31/03/2020 ₹ Nil).

Effect of Employee Share-Based Payment transactions on Profit or Loss for the period and on financial position:

For the year ended 31/03/2021, the Company recognised total expenses of ₹ 16 Crore (31/03/2020 ₹ 28 Crore) related to equity-settled and cash-settled share based transactions. During the year ended 31/03/2021, the Company has allotted 461,560 fully paid-up equity share of ₹ 1/- each of the Company (31/03/2020 692,442) on exercise of equity settled options for which the Company has realised ₹ 3 Crore (31/03/2020 ₹ 6 Crore) as exercise prices.

The Company has received ₹ 0.29 Crore (31/03/2020 ₹ 1 Crore) from Utkal Alumina International Limited and Hindalco - Almex Aerospace Limited (Subsidiaries) towards the grant of 88,676 Stock Options and 43,261 RSUs under ESOS 2018 which is netted off from Employee Share-Based Payments Expenses.

43 Related party disclosures

(A) List of Related Parties where control exists:

	Name of the Related Party	Principal Place of Business
(a)	**Subsidiary Companies:**	
1	Minerals & Minerals Limited	India
2	Renukeshwar Investments & Finance Limited	India
3	Renuka Investments & Finance Limited	India
4	Lucknow Finance Company Limited	India
5	Dahej Harbour and Infrastructure Limited	India
6	Utkal Alumina International Limited	India
7	Utkal Alumina Social Welfare Foundation	India
8	Kosala Livelihood And Social Foundation *	India
9	AV Minerals (Netherlands) N.V.	Netherland
10	Hindalco Do Brasil Industria Comercia de Alumina Ltda .	Brazil
11	AV Metals Inc.	Canada
12	Novelis Inc.	Canada
13	Novelis do Brasil Ltda.	Brazil
14	Brecha Energetica Ltda.	Brazil
15	4260848 Canada Inc.	Canada
16	4260856 Canada Inc.	Canada
17	8018227 Canada Inc.	Canada
18	Novelis (China) Aluminum Products Co., Ltd.	China
19	Novelis (Shanghai) Aluminum Trading Co., Ltd.	China
20	Novelis Laminés France SAS	France
21	Novelis PAE SAS	France
22	Novelis Aluminium Beteiligungsgesellschaft mbH	Germany
23	Novelis Deutschland GmbH	Germany
24	Novelis Sheet Ingot GmbH	Germany
25	Novelis (India) Infotech Ltd.	India
26	Novelis Aluminum Holding Unlimited Company	Ireland
27	Novelis Italia SpA	Italy
28	Novelis de Mexico S.A. de C.V.	Mexico
29	Novelis Korea Limited	South Korea
30	Novelis AG	Switzerland
31	Novelis Switzerland S.A.	Switzerland
32	Novelis MEA Ltd.	United Arab Emirates
33	Novelis Europe Holdings Limited	United Kingdom
34	Novelis UK Ltd.	United Kingdom
35	Novelis Services Limited	United Kingdom
36	Novelis Corporation	United States of America
37	Novelis South America Holdings LLC	United States of America
38	Novelis Holdings Inc.	United States of America
39	Novelis Services (North America) Inc.	United States of America
40	Novelis Global Employment Organization, Inc.	United States of America
41	Novelis Services (Europe) Inc.	United States of America
42	Novelis Vietnam Company Limited	Vietnam
43	Aleris Asia Pacific International (Barbados) Ltd. $	Barbados
44	Aleris Aluminum (Zhenjiang) Co., Ltd. $	China
45	Aleris (Shanghai) Trading Co., Ltd. $	China
46	Aleris Asia Pacific Limited $	Hong Kong
47	Aleris Aluminum Japan, Ltd. $	Japan
48	Aleris Aluminum Denmark ApS $	Denmark
49	Aleris Aluminum France S.à.r.l. $	France
50	Aleris Casthouse Germany GmbH $	Germany
51	Aleris Deutschland Holding GmbH $	Germany
52	Aleris Rolled Products Germany GmbH $	Germany
53	Aleris Aluminum Netherlands B.V. $	Netherlands
54	Aleris Aluminum Poland sp. z.o.o. $	Poland
55	Aleris Switzerland GmbH $	Switzerland
56	Aleris Aluminum UK Limited $	United Kingdom
57	Aleris Holding Canada ULC $	Canada
58	Aleris Corporation $	United States of America

Name of the Related Party	Principal Place of Business
59 Aleris International Inc. $	United States of America
60 Aleris Rolled Products,LLC $	United States of America
61 Aleris RM, Inc. $	United States of America
62 Aleris Rolled Products, Inc. $	United States of America
63 Nichols Aluminum LLC $	United States of America
64 Aleris Rolled Products Sales Corporation $	United States of America
65 IMCO Recycling of Ohio, LLC $	United States of America
66 Name Acquisition Co. $	United States of America
67 Nichols Aluminum-Alabama LLC $	United States of America
68 UWA Acquisition Co. $	United States of America
69 Suvas Holdings Limited	India
70 Hindalco-Almex Aerospace Limited	India
71 East Coast Bauxite Mining Company Private Limited	India
(b) Trust Controlled by the Company	
1 Hindalco Jan Seva Trust	India
2 Copper Jan Seva Trust	India
3 Utkal Alumina Jan Seva Trust	India

* Entity incorporated during the year
$ Represents subsidiaries acquired through acquisition of Aleris.

During the year ended March 31, 2021:

a. Novelis Acquisitions LLC – Company merged into Aleris Corporation after Aleris acquisition on April 14, 2020.
b. Aleris Aluminum Duffel BV and Aleris Aluminum Italy S.r.l. - companies was sold to LIBERTY (Alvance) on September 30, 2020.
c. Aleris Rolled Products Canada ULC and Aleris Rolled Products Mexico, S.de R.L.de C.V. were divested as part of the sale of the Lewisport Plant to Velocium ABS Corp. on December 1, 2020.
d. Aleris Worldwide, Inc. merged into Aleris Ohio Management, Inc. on December 12, 2020.
e. Intl Acquisition Co. merged into Aleris International, Inc. on December 12, 2020.
f. Aleris Ohio Management, Inc. merged into Aleris International, Inc. on December12, 2020.
g. Aleris Deutschland Vier GmbH & Co. KG was dissolved on December 15, 2020.
h. Dutch Aluminum C.V. was dissolved on December 11, 2020.
i. Aleris Holding Luxembourg S.à r.l. was liquidated on December 31, 2020.
j. Aleris Deutschland Vierte Verwaltungs GmbH merged into Aleris Deutschland Holding GmbH on Febraury 2, 2021.

(B) List of Related Parties with joint control and significant influence:

Name of the Related Party	Principal Place of Business
(a) Joint Ventures (Joint Control):	
1 MNH Shakti Limited (MNH Shakti)	India
2 Hydromine Global Minerals (GMBH) Limited (Hydromine)	British Virgin Islands
(b) Associates (Significant Influence):	
1 Aditya Birla Science & Technology Company Pvt. Limited (ABSTCPL)	India
2 Aditya Birla Renewable Subsidiary Limited (ABRSL)	India
3 Aditya Birla Renewables Solar Limited	India
4 Aditya Birla Renewable Utkal Limited (ABRUL)	India
5 Deutsche Aluminum Verpachung Recycling GMBH	Germany
6 France Aluminum Recyclage SPA.	France

(C) Key Managerial Personnel

	Name of the Related Party	Relationship
1	Mr. Satish Pai - Managing Director	Executive Directors
2	Mr. Praveen Maheshwari -Whole time Director & Chief Financial Officer	Executive Directors
3	Mr. Kumar Mangalam Birla	Non Executive Directors
4	Smt. Rajashree Birla	Non Executive Directors
5	Mr D Bhattacharya	Non Executive Directors
6	Mr. A.K.Agarwala	Non Executive Directors
7	Mr. K.N. Bhandari	Non Executive Directors
8	Mr. Y.P. Dandiwala	Non Executive Directors
9	Mr. Ram Charan (Resigned w.e.f. 14th August, 2020)	Non Executive Directors
10	Ms. Alka Bharucha	Non Executive Directors
11	Dr. Vikas Balia	Non Executive Directors
12	Mr. Sudhir Mital	Non Executive Directors
13	Mr. Anant Maheshwari (Appointed w.e.f. 14th August, 2020)	Non Executive Directors

(D) Other Related Parties with whom there were transactions during the year:

	Name of the Related Party	Relationship
1	Hindalco Employee's Gratuity Fund, Kolkata	Post-Employment Benefit Plan
2	Hindalco Employee's Gratuity Fund, Renukoot	Post-Employment Benefit Plan
3	Hindalco Employee's Provident Fund Institution, Renukoot	Post-Employment Benefit Plan
4	Hindalco Superannuation Scheme, Renukoot	Post-Employment Benefit Plan
5	Hindalco Industries Limited Employees' Provident Fund II	Post-Employment Benefit Plan
6	Hindalco Industries Limited Senior Management Staff Pension Fund II	Post-Employment Benefit Plan
7	Aditya Birla Management Corporation Private Limited (ABMCPL) @	Other related party in which Director is interested

@ The Company is a member of Aditya Birla Management Corporation Private Limited (ABMCPL), a company limited by guarantee formed for the purpose of its members to mutually avail and share common facilities, expertise and other support on cost basis.

(E) The following transactions were carried out with the related parties in the ordinary course of business

Nature of Transaction/Relationship	Year Ended	
	31/03/2021	31/03/2020
Sale of Goods	**49**	**55**
Subsidiaries	49	55
Services rendered	**9**	**6**
Subsidiaries	1	-
Other related party in which Director is interested	8	6
Interest received during the year	**3**	**4**
Subsidiaries	1	1
Associates	2	3
Dividend received during the year	**-**	**30**
Subsidiaries	-	30
Contribution to	**218**	**224**
Post-Employment Benefit Plan	208	217
Trust Controlled by the Company	10	7

Nature of Transaction/Relationship	Year Ended 31/03/2021	Year Ended 31/03/2020
Purchase of Materials, Capital Equipment and Others	**2,785**	**2,837**
Subsidiaries**	2,768	2,823
Associates	17	14
Services received	**430**	**493**
Subsidiaries	26	54
Associates	14	16
Other related party in which Director is interested	390	423
Investments, Loans and Deposits made during the year	**2**	**42**
Subsidiaries	2	40
Associates	-	1
Joint Ventures	-	1
Investments, Loans and Deposits made returned back during the year by	**8**	**31**
Subsidiaries	3	26
Associates	5	5
Licence and Lease agreements	**-**	**-**
Subsidiaries	-	-
Recovery of ESOP Expenses	**-**	**1**
Subsidiaries	-	1

(F) Outstanding balances:

Nature of Transaction/Relationship	Year Ended 31/03/2021	Year Ended 31/03/2020
Receivables and Advances	**106**	**150**
Subsidiaries	16	11
Other related party in which Director is interested	89	139
Trust Controlled by the Company	1	-
Payables	**313**	**281**
Subsidiaries^	282	255
Associates	1	1
Other related party in which Director is interested	30	22
Trust Controlled by the Company	-	3
Loans and Deposits (Given)	**49**	**55**
Subsidiaries	8	9
Associates	41	46
Guarantees and Collateral Securities given	**5**	**5**
Subsidiaries	5	5

all outstanding balances are unsecured and are payable in cash.

** Include purchase of Alumina from Utkal Alumina International Limited amounting to ₹ 2722 Crore (year ended 31/03/2020 ₹ 2772 Crore).

^ Include amount payable to Utkal Alumina International Limited amounting to ₹ 274 Crore (year ended 31/03/2020 ₹ 247 Crore).

(G) Compensation of Key Managerial Personnel (KMP) of the Company:

(₹ in Crore)

	Year ended 31/03/2021	Year ended 31/03/2020
(a) Remuneration of Executive Directors - (i) and (ii)	**29**	**38**
Short term employment benefit	27	36
Post employment benefits	2	2
(b) Remuneration to erstwhile Managing Director - (iii)	**3**	**3**
Post-employment benefits	3	3
(c) Remuneration of Non - Executive Directors	**6**	**3**
Commission & Sitting Fees	6	3

(i) Excludes amortisation of fair value of employee share-based payments under Ind AS 102.

(ii) As the liabilities for defined benefit plans are provided on actuarial basis for the Company as a whole, the amounts pertaining to Key Management Personnel are not included.

(iii) The Board approved pension of Mr. D. Bhattacharya of ₹ 0.335 Crore per month and other post-employment benefits for his past service when he was the Managing Director of the Company. The present value of the above pension liability determined based on the actuarial valuation is accounted by the Company in the financial statements. Amount charged as expenses in the statement of profit and loss during the year towards such post-employment benefit amounting to ₹ 3 Crore (as at 31/03/2020 ₹ 3 Crore) has been disclosed as a part of managerial remuneration above, and does not include the impact of actuarial (gains)/losses recognised in other comprehensive income.

44. Contingent Liabilities and Commitments

Refer Note 1B (K) for accounting policy on Provisions and contingencies

A. Contingent Liabilities

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
(a) Claims against Company not acknowledged as Debt:		
Following demands are disputed by the Company and are not provided for:		
(i) Demand for Stamp Duty by Collector (Stamp), Kanpur, Uttar Pradesh (U.P.) on merger of Copper Business of IndoGulf Corporation with the Company.	20	20
The matter is pending before the Hon'ble High Court of Allahabad. The Company believes that there is no substantive/computation provision for levy/calculation of stamp duty within the provisions of Uttar Pradesh Stamp Act on scheme of arrangement under the Companies Act, 1956, approved by the Court. Moreover, the properties in question are located in the State of Gujarat and, thus, the Collector (Stamp), Kanpur, has no territorial jurisdiction to make such a demand. Further, the Company has already paid the stamp duty for the same in 2003-04 which has been accepted as per the provisions of the Bombay Stamp Act, 1958.		
(ii) Demand towards drawal of energy during peak hours by Uttar Pradesh Power Corporation Limited (UPPCL)/ Purvanchal Vidyut Vitran Nigam Limited (PVVNL).	81	81
The dispute relates to the agreement entered with UPPCL for the period 2009-14. Demand was raised by UPPCL for drawl of banked energy during peak hours. The Hon'ble Supreme Court has stayed the demand and the matter is pending with Appellate Tribunal for Electricity (APTEL).		
(iii) Retrospective Revision of Water Rates by UP Jal Vidyut Nigam Limited. Writ petition pending with Lucknow Bench of Allahabad High Court. The demand for arrears stayed.	4	4

(₹ in Crore)

	As at 31/03/2021	As at 31/03/2020
(iv) Demand for Entry Tax relating to valuation dispute. Appeals have been filed with Additional CCT, Sambalpur.	28	28
(v) Interest demand on witholding of 50% payment of Entry tax. Appeal is pending before Hon'ble High Court of Odhisa and stay has been granted.	27	27
(vi) Demand from State and Central Sales Tax authorities for various years at different levels of appeal.	26	26
(vii) Disallowances of Cenvat Credit on inputs & Capital goods & short payment of excise on additional consideration received from recipient of deemed exporter. Matters are pending with CESTAT.	9	9
(viii) Disallowances of Service Tax credit on Input services at Various locations. These matters are pending with CESTAT authorities.	101	101
(ix) Demand for recovery of cenvat credit availed on service tax paid on Goods Transport Agency (outward charges). The matter is pending with Commissioner (Appeals), Vadodara & Commissioner, Bharuch.	9	9
(x) Water Tariff revision demand for previous years. The matter is pending in the Hon'ble High Court of Karnataka.	-	8
(xi) Green Cess Provision Under Electricity Act Year-2012-13 to Year 2017-18. The matter is Pending at Hon'ble Supreme Court.	12	12
(xii) Other Contingent Liabilities in respect of Excise, Customs, Sales Tax etc. each being for less than ₹ 1 Crore. The demands are in dispute at various legal forums .	9	10
(xiii) Transitional Credit of cess. Writ Petition filed before Odisha and MP High Court.	27	27
(xiv) Penalty For Unauthorised Disposal Of Anode Butts. The matter is pending with Odisha High Court.	14	14
	367	376

It is not practicable for the Company to estimate the timings of cash outflows, if any, in respect of the above matters, pending resolution of the respective proceedings.

B. Commitments

	31/03/2021	31/03/2020
(a) Estimated amount of contracts remaining to be executed on capital account and not provided for (net of advances)	635	701
(b) Other Commitment for purchase of goods and Services (Net of Advance)	21	560

(c) The Company has given the undertakings in connection with the loan of Utkal Aluminium International Limited (UAIL), a wholly owned subsidiary to hold minimum 51% equity shares in UAIL.

(d) The Company has subscribed to the Rights issue of Aditya Birla Fashion & Retail Limited at ₹ 110 per share (Face value of ₹ 10 and Premium of ₹ 100). Final call amounting ₹ 14 Crore (5,257,652 shares at ₹ 27.50 per share) is yet to be made.

45. Capital Management

The Company's objective to manage its capital is to ensure continuity of business while at the same time provide reasonable returns to its various stakeholders, but keep associated costs under control. In order to achieve this, requirement of capital is reviewed periodically with reference to operating and business plans that take into account capital expenditure and strategic investments. Apart from internal accrual, sourcing of capital is done through judicious combination of equity and borrowing, both short term and long term. Net debt (total borrowings less current investments and cash & cash equivalents) to equity ratio is used to monitor capital. No changes were made to the objectives, policies or processes for managing capital during the years ended March 31, 2021 and March 31, 2020.

	As at 31/03/2021	As at 31/03/2020
Debt Equity Ratio	0.4	0.51

As at March 31, 2021 and March 31, 2020, the Company was in compliance with all of its debt covenants for borrowings.

46. Offsetting Financial Liabilities and Financial Assets

Refer Note 1B (P) for accounting policy on Financial Instruments

Financial instruments subject to offsetting , enforceable master netting arrangement and similar arrangements.

(₹ in Crore)

As at 31/03/2021	Effects on Balance sheet			Related amounts not offset		
	Gross amount	Gross amount set off in the balance sheet	Net amount presented in the balance sheet	Amounts subject to master netting arrangements	Financial Instrument collateral	Net Amount
Financial Assets						
Derivatives	800	(80)	720	-	-	720
Financial Liabilities						
Derivatives	2,025	(80)	1,945	-	(267)	1,678

(₹ in Crore)

As at 31/03/2020	Effects on Balance sheet			Related amounts not offset		
	Gross amount	Gross amount set off in the balance sheet	Net amount presented in the balance sheet	Amounts subject to master netting arrangements	Financial Instrument collateral	Net Amount
Financial Assets						
Derivatives	986	(78)	908	-	-	908
Financial Liabilities						
Derivatives	706	(78)	628	-	(161)	467

47. Financial Instruments

Refer Note 1B (P) for accounting policy on Financial Instruments

A Fair Value Measurement

(a) The following table shows the carrying amounts of Financial Assets and Financial Liabilities by category:

(₹ in Crore)

		As at 31/03/2021			As at 31/03/2020		
	Note No	Amortised Cost	FVTOCI	FVTPL	Amortised Cost	FVTOCI	FVTPL
Financial Assets							
Investments in Associate							
Unquoted Instruments	6	-	128	-	-	34	-
Investments in Equity Instruments							
Quoted Equity Instruments	7A & 7B	-	7,200	-	-	2,893	-
Unquoted Equity Instruments	7A	-	20	-	-	27	-
Investments in Debt Instruments							
Mutual Funds	7A & 7B	-	-	7,026	-	-	4,575
Bonds and Debentures	7B	-	-	164	-	-	210
Government Securities	7A & 7B	-	385	-	-	93	-
Loans	8	60	-	-	69	-	-
Trade receivables	12	1,315	-	287	2,081	-	12
Cash and Cash Equivalents							
Cash and Bank	13	262	-	-	2,193	-	-
Liquid Mutual Funds	13	-	-	741	-	-	1,072
Bank Balances other than cash & cash equivalents	14	16	-	-	15	-	-
Derivatives	49	-	-	720	-	-	908
Other financial assets	9A & 9B	442	-	-	285	-	-
		2,095	7,733	8,938	4,643	3,047	6,777

(₹ in Crore)

		As at			
		31/03/2021		31/03/2020	
	Note No	Amortised Cost	FVTPL	Amortised Cost	FVTPL
Financial Liabilities					
Borrowings					
Non convertible debentures (NCDs)	18A	5,997	-	5,994	-
Long term Borrowings	18A	9,177	-	9,666	-
Short term Borrowings	18B	4,290	-	7,384	-
Lease Liabilities	2	311	-	317	-
Supplier's Credit	19	255	-	-	-
Trade Payables	20	4,029	4,771	1,779	2,211
Derivatives	49	-	1,945	-	628
Other financial Liabilities	21A & 21B	1,412	-	1,012	-
		25,471	**6,716**	**26,152**	**2,839**

The Company had acquired certain equity instruments for purpose of holding for a longer duration and not for the purpose of selling in near term for short term profit. Such instruments have been categorized as FVTOCI.

(b) The following table shows the fair values of Financial Assets and Financial Liabilities measured at amortised cost:

(₹ in Crore)

		As at			
		31/03/2021		31/03/2020	
	Note No	Carrying value	Fair Value	Carrying value	Fair Value
Financial Assets					
Loans	8	11	11	14	14
Deposits	9A	188	188	165	165
		199	**199**	**179**	**179**

(₹ in Crore)

		As at			
		31/03/2021		31/03/2020	
	Note No	Carrying value	Fair Value	Carrying value	Fair Value
Financial Liabilities					
Borrowings					
Non convertible debentures (NCDs)	18A	5,997	6,182	5,994	6,225
Long term Borrowings #	18A	9,642	9,718	9,672	9,745
		15,639	**15,900**	**15,666**	**15,970**

Carrying amount includes current portion of long term borrowing shown under other current financial liabilities (Refer Note 21B).

Fair Value of borrowings does not include interest accrued but not due.

Fair values for current financial assets and financial liabilities have not been disclosed because their carrying amount are a reasonable approximation of their fair values.

(c) Classification of finance income and finance cost by instrument category

(₹ in Crore)

		Year ended					
		31/03/2021			31/03/2020		
	Note No	Amortised Cost	FVTOCI	FVTPL	Amortised Cost	FVTOCI	FVTPL
Income							
Interest Income (i)	27	72	18	15	103	6	21
Dividend Income (ii)	27	-	18	-	-	27	-
		72	36	15	103	33	21
Expense							
Interest Expense (iii)	33	1,419	-	-	1,617	-	-
		1,419	-	-	1,617	-	-

(₹ in Crore)

Details of amount not included in the table above	As at	
	31/03/2021	31/03/2020
(i) Interest received from Income Tax Department	-	46
(ii) Dividend from Subsidiaries	-	29
(iii) Interest on Income Tax and other finance cost	50	62

For amortised cost and FVTOCI instruments, interest expense is recognised at effective interest rate.

B Fair Value Hierarchy

The following table shows the details of financial assets and financial liabilities including their levels in the fair value hierarchy:

(a) Financial assets and financial liabilities measured at fair value - recurring fair value measurements:

(₹ in Crore)

		As at					
		31/03/2021			31/03/2020		
	Note No	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial Assets							
Investments in Associates							
Unquoted Instruments	6	-	-	128	-	-	34
		-	**-**	**128**	**-**	**-**	**34**
Investments in Equity Instruments							
Quoted Equity Instruments	7A & 7B	7,200	-	-	2,893	-	-
Unquoted Equity Instruments	7A	-	-	20	-	-	27
		7,200	**-**	**20**	**2,893**	**-**	**27**
Investments in Debt Instruments							
Mutual Funds	7A & 7B	7,022	4	-	4,556	19	-
Bonds and Debentures	7B	-	77	87	6	-	204
Government Securities	7A & 7B	262	123	-	-	73	20
		7,284	**204**	**87**	**4,562**	**92**	**224**

(₹ in Crore)

		As at					
		31/03/2021			31/03/2020		
	Note No	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Trade Receivables	12	-	287	-	-	12	-
Cash and Cash Equivalents							
Liquid Mutual Funds	13	741	-	-	1,072	-	-
Derivatives	49	-	720	-	-	908	-
		15,225	**1,211**	**235**	**8,527**	**1,012**	**285**
Financial Liabilities							
Trade Payables	20	-	4,771	-	-	2,211	-
Derivatives	49	-	1,945	-	-	628	-
		-	**6,716**	**-**	**-**	**2,839**	**-**

(b) Fair value disclosure of Financial Assets and Financial Liabilities measured at amortised cost:

(₹ in Crore)

		As at					
		31/03/2021			31/03/2020		
	Note No	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial Liabilities							
Borrowings							
Non convertible debentures (NCDs)	18A	-	6,182	-	-	6,225	-
Long term Borrowings	18A	-	9,718	-	-	9,745	-
		-	**15,900**	**-**	**-**	**15,970**	**-**

(₹ in Crore)

		As at					
		31/03/2021			31/03/2020		
	Note No	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Financial Assets							
Loans	8	-	-	11	-	-	14
Deposits	9A	-	-	188	-	-	165
		-	**-**	**199**	**-**	**-**	**179**

Level 1 Hierarchy includes financial instruments valued using quoted market prices. Listed equity instruments and traded debt instruments which are traded in the stock exchanges are valued using the closing price at the reporting date. Mutual funds are valued using the closing NAV.

Level 2 Hierarchy includes financial instruments that are not traded in active market. This includes over the counter (OTC) derivatives, close ended mutual funds and debt instruments valued using observable market data such as yield etc. of similar instruments traded in active market. All derivatives are reported at discounted values hence are included in level 2. Borrowings have been fair valued using credit adjusted interest rate prevailing on the reporting date. Trade Receivables and Payables that are realigned based on forward LME/LBMA price movements have been included in Level 2 hierarchy.

Level 3 If one or more significant inputs is not based on observable market data, the instrument is included in level 3. This is the case for unlisted equity instruments and certain debt instruments which are valued using assumptions from market participants.

(iii) Disclosure of changes in level 3 items for the period ended 31/03/2021 and 31/03/2020 respectively

(₹ in Crore)

	Unquoted Associates	Unquoted Equity Instruments	Unquoted Debt Instruments	Total
As at 01/04/2019	**28**	**35**	**84**	**147**
Acquisitions	1	-	-	1
Sale	-	-	-	-
Gain/(losses) recognised in Profit or loss	-	-	1	1
Gain/(losses) recognised in OCI	5	(8)	-	(3)
Transfer from Level 1 and 2	-	-	189	189
Transfer to Level 1 and 2	-	-	(50)	(50)
As at 31/03/2020	**34**	**27**	**224**	**285**
Acquisitions	-	-	-	-
Sale	-	-	(49)	(49)
Gain/(losses) recognised in Profit or loss	-	-	2	2
Gain/(losses) recognised in OCI	94	(7)	-	87
Transfer from Level 1 and 2	-	-	6	6
Transfer to Level 1 and 2	-	-	(96)	(96)
As at 31/03/2021	**128**	**20**	**87**	**235**
Unrealised Gain/(loss) recognised in profit and loss relating to assets and liabilities held at the end of reporting period:				
As at 31/03/2021	-	-	5	5
As at 31/03/2020	-	-	5	5

Transfers from level 1 and 2 to level 3 and out of level 3 for unquoted debt instruments is based on unavailability/availability of market observable inputs as on the reporting date. The Company's policy is to recognise transfers into and transfers out of fair value hierarchy levels as at the end of the reporting period.

(iv) Sensitivity analysis of Level-3 Instruments:

(₹ in Crore)

	Unquoted Associates		Unquoted Equity Instruments		Unquoted Debt Instruments	
	Impact on Statement of Profit and Loss Post Tax	Impact on OCI Post Tax	Impact on Statement of Profit and Loss Post Tax	Impact on OCI Post Tax	Impact on Statement of Profit and Loss Post Tax	Impact on OCI Post Tax
Increase in Yield by 0.5%						
As at 31/03/2021	-	-	-	-	(1)	-
As at 31/03/2020	-	-	-	-	(2)	(1)
Increase in Price to Book Multiple by 10%						
As at 31/03/2021	-	7	-	1	-	-
As at 31/03/2020	-	1	-	1	-	-

Sensitivity with decrease in yield and Price Book Multiplier by 0.5% and 10% will have equal and opposite impact in financial statement.

(v) Valuation Process

Some of the Company's assets and liabilities are measured at fair value for financial reporting purposes. The Management of the Company has set up a team in the finance department which performs the valuation of financial assets and liabilities.

In estimating the fair value of an asset or a liability, the Company uses market-observable data to the extent it is available. Where Level 1 inputs are not available, the Company engages third party qualified valuers to perform the valuation. The team works closely with the qualified external valuers to establish the appropriate valuation techniques and inputs to the model. The team reports findings to the Management of the Company to explain the cause of fluctuations in the fair value of the assets and liabilities.

(vi) Valuation techniques used for valuation of instruments categorised as level 3

For valuation of investments in equity shares and associates which are unquoted, peer comparison has been performed wherever available. Valuation has been primarily done by considering the net worth of the Company and price to book multiple to arrive at the fair value. In cases where income approach was feasible valuation has been arrived using the earnings capitalisation method. For inputs that are not observable for these instruments, certain assumptions are made based on available information. The most significant of these assumptions are the discount rate and credit spreads used in the valuation process.

For valuation of investments in debt securities categorised as level 3, market polls which represent indicative yields are used as assumptions by market participants when pricing the asset.

There were no significant inter-relationships between unobservable inputs that materially affect fair values.

48. Financial Risk Management

Refer Note 1B (P) for accounting policy on Financial Instruments

The Company's activities exposes it to various risks such as market risk, liquidity risk and credit risk. This section explains the risks, which the Company is exposed to and how it manages those risks.

A Market Risk

(i) Market Risk : Commodity Price Risk

Hindalco's India Operations consist of two businesses – Copper Business and Aluminium Business. The Copper Business works under a "Custom Smelting" model wherein the focus is to improve the processing margin. The timing mis-match risk between the input and output price, which is linked to the same international pricing benchmark, is eliminated through use of derivatives. This off-set hedge model (through use of derivatives) is used to manage the timing mis-match risk for both Commodity (Copper and Precious Metals) and Currency Risk (primarily, USD/INR). The Copper Business also has a portion of View Based exposure for both Commodity and Currency, beyond the above timing mis-match risk. Lower Copper Prices, Stronger USD/INR exchange rate and Higher "Other Input" Prices (eg Coal, furnace oil, natural gas etc) are the major price risks that adversely impact the business. Here, the Company may use derivative instruments, wherever available, to manage these pricing risks. A variety of factors, including the risk appetite of the business and price view, are considered while taking Hedging Decisions. Such View based hedges are usually done for the next 1-15 quarters.

The Aluminium Business is a vertically integrated business model wherein the input and output pricing risks are independent of each other, i.e. are on different pricing benchmarks, if any. Here, the Company may use derivative instruments, wherever available, to manage its pricing risks for both input and output products. Lower Aluminium Prices, Stronger USD/INR exchange rate and Higher Input Prices (e.g. Alumina, furnace oil, coal tar pitch) are the major price risks that adversely impact the Business. Hedging decisions are based on a variety of factors, including risk appetite of the business and price View. Such Hedge decisions are usually done for the next 1-12 quarters.

Embedded Derivatives

Copper concentrate is purchased on future pricing model based on month's average LME (in case of copper) / LBMA (in case of gold and silver). Since, the value of the concentrate changes with response to change in commodity pricing indices, embedded derivatives (ED) is identified and segregated in the contract. The ED so segregated, is treated like commodity derivative and qualify for hedge accounting. These derivatives are put into a Fair Value hedge relationship with respect to inventory.

(a) The table below summarises gain/(loss) impact of increase/decrease in the commodity price on the company's equity and profit for the year:

Commodity Risk	Price Index	Increase in Price	Year ended 31/03/2021 Gain/ (Loss) in Statement of Profit and Loss Post Tax	Year ended 31/03/2021 Gain/ (Loss) in Other Components of Equity Post Tax	Year ended 31/03/2020 Gain/ (Loss) in Statement of Profit and Loss Post Tax	Year ended 31/03/2020 Gain/ (Loss) in Other Components of Equity Post Tax
Aluminium	LME	10%	-	(613)	(1)	(200)
Copper	LME	10%	(696)	(24)	(222)	(47)
Gold	LBMA/ MCX	10%	(104)	-	(86)	-
Silver	LBMA	10%	(19)	-	(14)	-
Furnace Oil	AG Platts	10%	-	6	-	10
Coal	API IV	10%	-	-	-	1
Regassified Liquified Natural Gas	ICE Brent	10%	-	-	-	1

Decrease in prices by 10% will have equal and opposite impact in financial statements.

Sensitivity analysis has been computed by stress testing the market price of the underlying price index on the outstanding derivative position as on the reporting date by assuming all other factors constant.

(ii) Market Risk : Foreign Currency Risk

Exchange rate movements, particularly the United States Dollar (USD) and Euro (EUR) against Indian Rupee (INR), have an impact on our operating results. In addition to the foreign exchange inflow from exports, the commodity prices in the domestic market are derived based on the landed cost of imports in India where LME prices and USD/INR exchange rate are the main factors. In case of conversion business, the objective is to match the exchange rate of outflows and related inflows through derivative financial instruments. With respect to Aluminium business where costs are predominantly in INR, the strengthening of INR against USD adversely affects the profitability of the business and benefits when INR depreciates against USD. The company enters into various foreign exchange contracts to protect profitability. The Company also enters into various foreign exchange contracts to mitigate the risk arising out of foreign currency exchange rate movement in foreign currency contracts executed with foreign suppliers to procure capital items for its project activities.

During the year ended, the Company's foreign currency exposure arising from exports and import transactions resulted in the FOB value of exports amounting to ₹ 13,860 Crore (31/03/2020 ₹ 11,009 Crore) and the CIF value of imports amounting to ₹ 21,274 Crore (31/03/2020 ₹ 17,089 Crore).

(a) The Company's net exposure to foreign currency risk at the end of the reporting period expressed in ₹ is given below:

(₹ in Crore)

Unhedged Foreign Currency Payable / (Receivable) Currency Pair	As at 31/03/2021	As at 31/03/2020
USD	521	469
EUR	8	(2)
GBP	(2)	1
NOK	1	1
CHF	1	1
	529	470

Assets and liabilities that are naturally hedged against future transactions are excluded for the purpose of above disclosure.

(b) The table below summarises gain/(loss) impact of increase/decrease in the exchange rates on the company's equity and profit for the year:

(₹ in Crore)

Currency Risk	Increase in Rate/Price	Year ended 31/03/2021 Gain/ (Loss) in Statement of Profit and Loss Post Tax	31/03/2021 Gain/ (Loss) in Other Components of Equity Post Tax	31/03/2020 Gain/ (Loss) in Statement of Profit and Loss Post Tax	31/03/2020 Gain/ (Loss) in Other Components of Equity Post Tax
USD	10%	33	(1,110)	114	(1,293)
EUR	10%	3	1	4	5

Decrease in prices by 10% will have equal and opposite impact in financial statements.

Sensitivity analysis has been computed by stress testing the market price of the underlying currency index on the outstanding derivative position and unhedged exposure as on the reporting date by assuming all other factors constant.

(iii) Market Risk: Equity Securities Price Risk

The Company's exposure to equity securities price risk arises from movement in market price of related securities classified either as FVTOCI or FVTPL. The Company manages the price risk through diversified portfolio.

The table below summarises gain/(loss) impact on of increase/decrease in the equity share price on the company's equity and profit for the year:

(₹ in Crore)

Other Price Risk	Price Index	Increase Rate/Price	Year ended 31/03/2021 Gain/ (Loss) in Statement of Profit and Loss Post Tax	31/03/2021 Gain/ (Loss) in Other Components of Equity Post Tax	31/03/2020 Gain/ (Loss) in Statement of Profit and Loss Post Tax	31/03/2020 Gain/ (Loss) in Other Components of Equity Post Tax
Investment in Equity Securities	NSE	10%	-	636	-	256

Decrease in prices by 10% will have equal and opposite impact in financial statements.

Sensitivity analysis has been computed by stress testing the market price of the underlying price index on the investment portfolio as on the reporting date by assuming all other factors constant.

(iv) Market Risk: Interest Rate Risk

The Company is exposed to interest rate risk on financial liabilities such as borrowings, both short-term and long-term. It maintains a balance of fixed and floating interest rate borrowings and the proportion is determined by current market interest rates, projected debt servicing capability and view on future interest rates. Such interest rate risk is actively evaluated and interest rate swap is taken whenever considered necessary.

The Company is also exposed to interest rate risk on its financial assets that include fixed deposits, bonds, debentures, commercial papers, other mutual funds and liquid investments comprising mainly mutual funds (which are part of cash and cash equivalents). Since, majority of these are generally for short durations, the Company believes it has limited interest rate risk.

(a) The table below summarises gain/(loss) impact of increase/decrease in the interest rates on the company's equity and profit for the year:

(₹ in Crore)

Interest Rate Risk	Increase in Rate	Year ended 31/03/2021 Gain/ (Loss) in Statement of Profit and Loss Post Tax	31/03/2021 Gain/ (Loss) in Other Components of Equity Post Tax	31/03/2020 Gain/ (Loss) in Statement of Profit and Loss Post Tax	31/03/2020 Gain/ (Loss) in Other Components of Equity Post Tax
Interest rate on floating rate borrowings	100 bps	(61)	-	(62)	-

Decrease in rates by 100 bps will have equal and opposite impact in financial statements.

Sensitivity analysis has been computed by stress testing the interest rates applicable (i.e. USD 3M Libor, SBI 3M MCLR, PNB 1M MCLR, Repo Rate and 3M T-bill etc.) on the amount of borrowings during the year by assuming all other factors constant.

(b) Interbank Offered Rates (IBOR) Reform

The following table contains details of all financial instruments that are referenced to IBOR which have not yet transitioned to an alternative interest rate benchmark (ARR):

Non-derivative assets and liabities	IBOR Exposure	Carrying Value (₹ in Crore)	Carrying Value (USD in Milllion)	Alternative Interest Rate Benchmark
Long Term Foreign Currency Borrowings *	USD 3M LIBOR	457	63	Secured Overnight funding Rate (SOFR)
Short Term Foreign Currency Borrowings	USD 1M/3M/6M LIBOR	4245	580	

* The Company has served a prepayment notice to prepay entire loan of USD 63 Million in Apr 21 hence IBOR related debt modification change assessment would not be applicable.

Derivatives

The Company does have any interest rate hedges oustanding as on the reporting date, accordingly IBOR related impact on hedge accounting including discounting of other derivatives is not expected to be material.

B Liquidity Risk

The Company determines its liquidity requirements in the short, medium and long term. This is done by drawing up cash forecast for short and medium term requirements and strategic financing plans for long term needs.

The Company manages its liquidity risk in a manner so as to meet its normal financial obligations without any significant delay or stress. Such risk is managed through ensuring operational cash flow while at the same time maintaining adequate cash and cash equivalents position. The management has arranged for diversified funding sources and adopted a policy of managing assets with liquidity in mind and monitoring future cash flows and liquidity on a regular basis. Surplus funds not immediately required are invested in certain financial assets (including mutual funds) which provide flexibility to liquidate at short notice and are included in current investments and cash equivalents. Besides, it generally has certain undrawn credit facilities which can be accessed as and when required, which are reviewed periodically.

The Company has developed appropriate internal control systems and contingency plans for managing liquidity risk. This incorporates an assessment of expected cash flows and availability of alternative sources for additional funding, if required.

(i) Financing Arrangement

The Company had access to the following undrawn borrowing facilities at the end of the reporting period:

(₹ in Crore)

	As at	
	31/03/2021	31/03/2020
Bank Overdraft and other facilities (expiring within 1 year)	180	200
Bank Overdraft and other facilities (expiring beyond 1 year)	1,472	575

Undrawn limit has been calculated based on the available drawing power and sanctioned amount at each reporting date.

(ii) Maturity Analysis

The company's financial liabilities into relevant maturity groupings based on their contractual maturities for all non-derivative financial liabilities and net settled derivative financial instruments. The amounts disclosed in the table are the contractual undiscounted cash flows. Balances due within 12 months equal their carrying balances as the impact of discounting is not significant.

(₹ in Crore)

Contractual maturities of financial liabilities as at 31/03/2021	Note No	Less than 1 Year	Between 1 and 2 Years	Between 2 and 5 Years	Over 5 years	Total	Carrying Value
Non Derivatives							
Borrowings (a)							
Principal Payments	18A, 18B & 21B	4,757	6,008	2,023	7,202	19,990	19,929
Interest Payments		731	1,198	1,752	1,086	4,767	-
Lease liabilities (b)	2	91	48	95	560	794	311
Supplier's Credit	19	255	-	-	-	255	255
Trade payables	20	8,800	-	-	-	8,800	8,800
Other financial liabilities	21A & 21B	937	10	-	-	947	947
		15,571	**7,264**	**3,870**	**8,848**	**35,553**	**30,242**
Derivatives (net settled)	49						
Commodity forwards/swaps/options		1,543	365	26	-	1,934	1,932
Currency forwards/options		14	-	-	-	14	13
		1,557	**365**	**26**	**-**	**1,948**	**1,945**

(₹ in Crore)

Contractual maturities of financial liabilities as at 31/03/2020	Note No	Less than 1 Year	Between 1 and 2 Years	Between 2 and 5 Years	Over 5 years	Total	Carrying value
Non Derivatives							
Borrowings (a)							
Principal Payments	18A, 18B & 21B	7,390	309	7,084	8,321	23,104	23,050
Interest Payments		889	1,295	2,660	1,828	6,672	-
Lease liabilities (b)	2	97	63	87	563	810	317
Trade payables	20	3,990	-	-	-	3,990	3,990
Other financial liabilities	21A & 21B	998	6	2	-	1,006	1,006
		13,364	**1,673**	**9,833**	**10,712**	**35,582**	**28,363**
Derivatives (net settled)	49						
Commodity forwards/swaps/options		154	5	-	-	159	159
Currency forwards/options		211	102	52	-	365	339
Currency swaps		130	-	-	-	130	130
		495	**107**	**52**	**-**	**654**	**628**

(a) Includes Principal and interest payments, short term borrowings, current portion of debt and excludes unamortised fees.

(b) Total cash outflow for leases for the year ended 31/03/2021 is ₹ 181 Crore (31/03/2020: ₹ 169 Crore).

C Credit Risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligation.

Credit risk arises from cash and cash equivalents, contractual cash flows of debt investments, favourable derivative financial instruments and deposits with banks and financial institutions, as well as credit exposures to customers including outstanding receivables.

Credit risk is managed on an entity level basis. The Company has adopted a policy of dealing only with creditworthy counterparties and obtaining sufficient collateral, where appropriate, as a means of mitigating risk of financial loss from defaults. The Company invests only in those instruments issued by high rated banks/ institutions and government agencies. The Company assesses the credit quality of the customer, taking into account its financial position, past experience and other factors. The Company's investments in debt instruments and certain loans are considered to have low credit risk. The credit ratings of the investments are monitored for credit deterioration.

For some trade receivables the Company obtains security in the form of guarantees, deed of undertaking or letters of credit which can be called upon if the counterparty is in default under the terms of the agreement.

The Company periodically monitors the recoverability and credit risks of its other financials assets including security deposits and other receivables. The Company evaluates 12 month expected credit losses for all the financial assets for which credit risk has not increased. In case credit risk has increased significantly, the Company considers life time expected credit losses for the purpose of impairment provisioning.

The Company has used a practical expedient by computing the expected credit loss allowance for trade receivables based on a provision matrix. The provision matrix takes into account historical credit loss experience and adjusted for forward-looking information. The expected credit loss allowance is based on the ageing of the days for which the receivables are due and the expected loss rates as given in the provision matrix. The provision matrix at the end of the reporting period is as follows:

(i) Summary of trade receivables and provision with ageing as at 31-Mar-21

(₹ in Crore)

Particulars	Not due	Past due					Total
		1 to 30 days	31 to 60 days	61 to 120 days	121 to 180 days	Over 180 days	
Gross carrying amount - Domestic	974	176	43	21	40	41	1,295
Gross carrying amount - Export	294	37	7	-	-	1	339
Expected loss rate	0.00%	0.00%	0.00%	0.00%	0.00%	4.76%	0.12%
Expected credit loss provision	-	-	-	-	-	2	2
Loss allowance - Credit impaired - Export	-	-	-	-	-	1	1
Loss allowance - Credit impaired - Domestic	-	-	-	-	-	29	29
Total Provision	-	-	-	-	-	32	32
Carrying amount of trade receivables (net of impairment)	**1,268**	**213**	**50**	**21**	**40**	**10**	**1,602**

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(ii) Summary of trade receivables and provision with ageing as at 31-Mar-20

(₹ in Crore)

Particulars	Not due	Past due: 1 to 30 days	31 to 60 days	61 to 120 days	121 to 180 days	Over 180 days	Total
Gross carrying amount - Domestic	1,271	147	77	47	54	72	1,668
Gross carrying amount - Export	351	106	4	2	-	1	464
Expected loss rate	0.00%	0.79%	1.23%	10.12%	0.00%	1.37%	0.42%
Expected credit loss provision	-	2	1	5	-	1	9
Loss allowance - Credit impaired - Export	-	-	-	-	-	1	1
Loss allowance - Credit impaired - Domestic	-	-	-	-	-	29	29
Total Provision	-	2	1	5	-	31	39
Carrying amount of trade receivables (net of impairment)	**1,622**	**251**	**80**	**44**	**54**	**42**	**2,093**

(iii) Reconciliation of Provision

(₹ in Crore)

Loss allowance as at 01/04/2019	35
changes in loss allowance	4
Loss allowance as at 31/03/2020	39
changes in loss allowance	(7)
Loss allowance as at 31/03/2021	32

Of the trade receivables balance as at 31/03/2021, ₹ 214 Crore (as at 31/03/2020, ₹ 256 Crore) is due from a single customer being the Company's largest customer. There are no other customers who represent more than 10% of the total balance of trade receivables.

Financial assets at FVTPL and at FVTOCI:

The Company is also exposed to credit risks in relation to financial assets that are measured at FVTPL or at FVTOCI. The maximum exposure at the end of the reporting period is the carrying amount of these assets.

49. Derivative Financial Instruments:

Refer Note 1B (P) for accounting policy on Financial Instruments

Refer Note 1B (Q) for accounting policy on Derivatives and hedge accounting

The Company uses derivative financial instruments such as forwards, futures, swaps, options etc. to hedge its risks associated with foreign exchange fluctuation and price risk movements. Risks associated with fluctuation in the price of the products (copper, aluminium, coal, furnace oil, natural gas, coal tar pitch and precious metals) are minimized by undertaking appropriate derivative instruments. Derivatives embedded in other contracts are treated as separate derivatives when their risks and characteristics are not closely related to their host contracts. In some cases, the embedded derivatives may be designated in a hedge relationship. The fair values of all such derivative financial instruments are recognized as assets or liabilities at the balance sheet date.

The Company also applies hedge accounting using certain foreign currency non-derivative monetary items which are used as hedging instruments for hedging foreign exchange risk.

(A) The Asset and Liability position of various outstanding derivative financial instruments is given below:

(₹ in Crore)

	Nature of Risk being Hedged	As at 31/03/2021 Liability	Asset	Net Fair Value	As at 31/03/2020 Liability	Asset	Net Fair Value
Current							
Cash flow hedges							
Commodity contracts	Price Risk Component	(948)	36	(912)	(72)	643	571
Foreign currency contracts	Exchange rate movement risk	-	135	135	(314)	20	(294)
Fair Value Hedge							
Commodity contracts	Price Risk Component	(99)	285	186	(78)	46	(32)
Foreign currency contracts	Exchange rate movement risk	(10)	-	(10)	-	46	46
Embedded Derivatives *	Risk of change in Fair Value of unpriced inventory	(411)	120	(291)	(11)	526	515
Non-designated hedges							
Commodity contracts	Price Risk Component	(495)	37	(458)	(4)	88	84
Foreign currency contracts	Exchange rate movement risk	(3)	2	(1)	(19)	19	-
Embedded Derivatives *	Risk of change in Fair Value of unpriced inventory	-	-	-	-	14	14
Total		**(1,966)**	**615**	**(1,351)**	**(498)**	**1,402**	**904**
Non - current							
Cash flow hedges							
Commodity contracts	Price Risk Component	(390)	2	(388)	(5)	37	32
Foreign currency contracts	Exchange rate movement risk	-	223	223	(136)	9	(127)
Total		**(390)**	**225**	**(165)**	**(141)**	**46**	**(95)**
Grand Total		**(2,356)**	**840**	**(1,516)**	**(639)**	**1,448**	**809**

* Fair Value loss of ₹ 291 Crore (31/03/2020 gain ₹ 529 Crore) is classified as part of Trade Payables.

The maturity profile for Commodity forwards, Swaps and Options ranges from April 2021 to March 2023, Foreign Exchange Forwards ranges from April 2021 to March 2025. Hedge Ratio of 1:1 is used by the Company except for its Regassified Liquified Natural Gas hedge program where the ratio is 1:8.

The maturity profile of hedges taken based on the nature of risk hedged is tabulated below :

Risk Category	Commodity/ Currency Pair	% of Outstanding Hedges FY 2022	FY 2023	FY 2024	FY 2025
Price Risk	Aluminium	71%	29%	-	-
	Copper	100%	-	-	-
	Gold	100%	-	-	-
	Silver	100%	-	-	-
	Furnace Oil	100%	-	-	-
Exchange Risk	USD_INR	52%	26%	10%	13%
	EUR_INR	100%	-	-	-
	GBP_INR	100%	-	-	-
	SGD_INR	100%	-	-	-

(B) Outstanding position and fair value of various foreign exchange derivative financial instruments:

(₹ in Crore)

	Currency Pair	As at 31/03/2021 Weighted Average Strike Rate	31/03/2021 Notional Value (in Million)	31/03/2021 Fair Value Gain/ (Loss)	As at 31/03/2020 Weighted Average Strike Rate	31/03/2020 Notional Value (in Million)	31/03/2020 Fair Value Gain/ (Loss)
Foreign currency forwards							
Cash flow hedges							
Sell	USD_INR	81.45	1,069	358	79.85	1,557	(300)
Buy	EUR_INR	90.82	-	-	85.62	9	-
Total				**358**			**(300)**
Fair Value hedges							
Buy	USD_INR	74.45	159	(10)	73.18	132	46
Total				**(10)**			**46**
Non-Designated							
Buy	EUR_INR	88.57	6	(1)	85.44	7	-
Buy	GBP_INR	98.46	-	-	93.21	-	-
Buy	USD_INR	72.98	28	1	75.83	247	12
Sell	USD_INR	73.07	51	(1)	75.56	157	(12)
Buy	SGD_INR	55.85	1	-	-	-	-
Total				**(1)**			-
Foreign currency swaps							
Cash flow hedges							
Sell	USD_INR	-	-	-	63.51	118	(109)
Total				-			**(109)**
Foreign currency options							
Cash flow hedges							
Sell	USD_INR	-	-	-	72.79	50	(12)
Total				-			**(12)**
Grand Total				**347**			**(375)**

(C) Outstanding position and fair value of various foreign exchange non-derivative financial instruments used as hedging instruments:

(₹ in Crore)

	Note No	Currency Pair	As at 31/03/2021 Average exchange rate	31/03/2021 Notional Value (in Million)	31/03/2021 Fair Value Gain/ (Loss)	As at 31/03/2020 Average exchange rate	31/03/2020 Notional Value (in Million)	31/03/2020 Fair Value Gain/ (Loss)
Foreign currency monetary items								
Cash flow hedges								
Debt	18B	USD_INR	73.13	580	11	71.52	659	(254)
Liability for Copper Concentrate	19B	USD_INR	72.84	680	(19)	73.86	267	(47)
Total					**(8)**			**(301)**

(D) Outstanding position and fair value of various commodity derivative financial instruments

(i) Outstanding position and fair value of various commodity derivative financial instruments as at 31st March, 2021:

(₹ in Crore)

		Currency	Weighted Average Strike Rate	Quantity	Unit	Notional value (in millions)	Fair Value Gain/(Loss)
Commodity Futures/Forwards/Swaps							
Cash Flow Hedge							
Aluminium	Sell	USD	1,902.25	547,250	MT	1,041	(1,307)
Copper	Sell	USD	8,331.38	5,875	MT	49	(19)
Furnace Oil	Buy	USD	222.52	40,000	MT	9	33
Total							**(1,293)**
Fair Value Hedge							
Copper	Sell	USD	8,564.24	46,325	MT	397	(76)
Gold	Sell	INR	4,841,222	7,109	KGS	34,416	260
Silver	Sell	USD	24.72	1,032,196	TOZ	26	2
Total							**186**
Non Designated hedges							
Aluminium	Buy	USD	2,174.75	82,825	MT	180	12
Aluminium	Sell	USD	1,724.41	82,495	MT	142	(283)
Copper	Buy	USD	8,901.87	32,575	MT	290	(26)
Copper	Sell	USD	8,543.45	38,725	MT	331	(71)
Gold	Buy	INR	4,633,701	4,608	KGS	21,352	(78)
Silver	Buy	USD	26.02	1,037,171	TOZ	27	(12)
Silver	Sell	USD	23.88	1,162,387	TOZ	28	(5)
Furnace Oil	Buy	USD	271.47	7,446	MT	2	5
Furnace Oil	Sell	USD	373.43	7,446	MT	3	-
Total							**(458)**
Commodity Options							
Cash Flow Hedge							
Aluminium	Sell	USD	2,200.42	45,000	MT	99	(7)
Total							**(7)**
Embedded derivatives							
Fair Value Hedge							
Copper	Sell	USD	8,433.72	113,831	MT	960	(302)
Gold	Sell	USD	1,724.11	38,284	TOZ	66	5
Silver	Sell	USD	26.17	498,103	TOZ	13	6
Total							**(291)**
Grand Total							**(1,863)**

(ii) Outstanding position and fair value of various commodity derivative financial instruments as at 31st March, 2020:

(₹ in Crore)

		Currency	Weighted Average Strike Rate	Quantity	Unit	Notional value (in millions)	Fair Value Gain/(Loss)
Commodity Futures/Forwards/Swaps							
Cash Flow Hedge							
Aluminium	Sell	USD	1,864.28	265,500	MT	495	622
Copper	Sell	USD	5,261.20	19,650	MT	103	46
Furnace Oil	Buy	USD	257.24	118,867	MT	31	(65)
Coal	Buy	USD	72	20,000	MT	1	-
Natural Gas	Buy	USD	34.55	45,500	BBL	2	-
Total							**603**
Fair Value Hedge							
Gold	Sell	INR	4,154,052	4,808	KGS	19,966	(77)
Silver	Sell	USD	17.59	1,709,254	TOZ	30	45
Total							**(32)**
Non Designated hedges							
Aluminium	Buy	USD	1,613.33	18,350	MT	30	(15)
Aluminium	Sell	USD	1,875.43	18,150	MT	34	50
Copper	Buy	USD	4,989.39	8,150	MT	41	(3)
Copper	Sell	USD	5,275.19	12,750	MT	67	32
Gold	Buy	INR	4,238,148	2,885	KGS	12,227	27
Silver	Buy	USD	13.06	201,115	TOZ	3	1
Silver	Sell	USD	18.28	177,427	TOZ	3	6
Furnace Oil	Buy	USD	279.34	13,962	MT	4	(12)
Furnace Oil	Sell	USD	170.58	12,830	MT	2	1
Coal	Buy	USD	75.61	50,000	MT	4	(2)
Coal	Sell	USD	68.75	50,000	MT	3	(1)
Natural Gas	Buy	USD	34.55	6,500	BBL	-	-
Total							**84**
Embedded derivatives							
Fair Value Hedge							
Copper	Sell	USD	5,726.45	84,801	MT	486	501
Gold	Sell	USD	1,595.69	42,835	TOZ	68	7
Silver	Sell	USD	16.99	294,397	TOZ	5	7
Total							**515**
Non Designated hedges							
Copper	Sell	USD	5,654.37	2,536	MT	14	14
Total							**14**
Grand Total							**1,184**

(E) The following table presents details of amount held in Effective portion of Cash Flow Hedge and Cost of Hedging Reserve and the period during which these are going to be released and affecting Statement of Profit and Loss.

(₹ in Crore)

	As at					
	31/03/2021			31/03/2020		
Cash Flow Hedges	Closing Value Cash Flow Hedges	Release Within 12 Months	Release After 12 Months	Closing Value Cash Flow Hedges	Release Within 12 Months	Release After 12 Months
	Gain/ (Loss)	Gain/ (Loss)	Gain/ (Loss)	Gain/ (Loss)	Gain/ (Loss)	Gain/ (Loss)
Commodity Forwards/Futures/ Swaps						
Aluminium	(1,306)	(1,001)	(305)	622	622	-
Copper	(19)	(19)	-	46	46	-
Furnace Oil	33	33	-	(64)	(63)	(1)
	(1,292)	**(987)**	**(305)**	**604**	**605**	**(1)**
Non-Derivative Financial Instruments						
Debt	11	11	-	(254)	(254)	-
Liability for Copper Concentrate	5	5	-	(59)	(59)	-
Foreign currency Forwards						
USD_INR	358	135	223	(300)	(172)	(128)
EUR_INR	-	-	-	(1)	(1)	-
Foreign currency Swaps						
USD_INR	-	-	-	(139)	(139)	-
Foreign currency Options						
USD_INR	-	-	-	(10)	(10)	-
	374	**151**	**223**	**(763)**	**(635)**	**(128)**
	(918)	**(836)**	**(82)**	**(159)**	**(30)**	**(129)**
Deferred Tax on above	322	293	29	57	10	47
Total	**(596)**	**(543)**	**(53)**	**(102)**	**(20)**	**(82)**

(₹ in Crore)

	As at					
	31/03/2021			31/03/2020		
Cost of Hedging Reserve	Closing Value Cost of Hedge Reserve	Release Within 12 Months	Release After 12 Months	Closing Value Cost of Hedge Reserve	Release Within 12 Months	Release After 12 Months
	Gain/ (Loss)	Gain/ (Loss)	Gain/ (Loss)	Gain/ (Loss)	Gain/ (Loss)	Gain/ (Loss)
Commodity Forwards/Swaps						
Copper	22	22	-	-	-	-
Silver	-	-	-	1	1	-
Commodity Options						
Aluminium	(7)	(7)	-	-	-	-
Foreign currency Swaps						
USD_INR	-	-	-	184	184	-
Foreign currency Options						
USD_INR	-	-	-	(2)	(2)	-
	15	**15**	**-**	**183**	**183**	**-**
Deferred Tax on above	(5)	(5)	-	(64)	(64)	-
Total	**10**	**10**	**-**	**119**	**119**	**-**

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(F) Gain/(loss) recognized in OCI and recycled:

i The following tables presents the amount of gain/(loss) recognized in Effective portion of Cash Flow Hedge and Cost of Hedging Reserve and recycled during the financial year 2020-21:

(₹ in Crore)

Cash Flow Hedges	Recycled					
	Opening Balance	Net Amount recognised	Net Amount to P&L	Net Amount added to Non-Financial Assets	Total Amount recycled	Closing Balance
Commodity	604	(2,574)	(681)	3	(678)	(1,292)
Forex	(763)	1,021	(115)	(1)	(116)	374
Total	**(159)**	**(1,553)**	**(796)**	**2**	**(794)**	**(918)**
Deferred Tax on above	57	542	278	(1)	277	322
Total	**(102)**	**(1,011)**	**(518)**	**1**	**(517)**	**(596)**

(₹ in Crore)

Cost of Hedging Reserve	Recycled					
	Opening Balance	Net Amount recognised	Net Amount to P&L	Net Amount added to Non-Financial Assets	Total Amount recycled	Closing Balance
Commodity	1	48	34	-	34	15
Forex	182	7	189	-	189	-
Total	**183**	**55**	**223**	**-**	**223**	**15**
Deferred Tax on above	(64)	(19)	(78)	-	(78)	(5)
Total	**119**	**36**	**145**	**-**	**145**	**10**

ii The following tables presents the amount of gain/(loss) recognized in Effective portion of Cash Flow Hedge and Cost of Hedging Reserve and recycled during the financial year 2019-20:

(₹ in Crore)

Cash Flow Hedges	Recycled					
	Opening Balance	Net Amount recognised	Net Amount to P&L	Net Amount added to Non-Financial Assets	Total Amount recycled	Closing Balance
Commodity	399	805	621	(21)	600	604
Forex	(96)	(1,077)	(409)	(1)	(410)	(763)
Total	**303**	**(272)**	**212**	**(22)**	**190**	**(159)**
Deferred Tax on above	(105)	96	(74)	8	(66)	57
Total	**198**	**(176)**	**138**	**(14)**	**124**	**(102)**

(₹ in Crore)

Cost of Hedging	Recycled					
	Opening Balance	Net Amount recognised	Net Amount to P&L	Net Amount added to Non-Financial Assets	Total Amount recycled	Closing Balance
Commodity	-	3	2	-	2	1
Forex	772	94	684	-	684	182
Total	**772**	**97**	**686**	**-**	**686**	**183**
Deferred Tax on above	(270)	(34)	(240)	-	(240)	(64)
Total	**502**	**63**	**446**	**-**	**446**	**119**

(G) The following table presents the amount of gain/ (loss) recycled from Effective portion of Cash Flow Hedge and Cost of Hedging Reserve and reference of the line item in the Statement of Profit and Loss where those amounts are included:

(₹ in Crore)

Note No.	Note Description	Particulars	Year Ended 31/03/2021	Year Ended 31/03/2020
26	Revenue From Operations	Aluminium Products	(471)	1,010
26	Revenue From Operations	Copper and Copper Products	(136)	2
26	Revenue From Operations	Precious Metals	-	(116)
37	Other Expenses	Gain/(Loss) on Derivatives	34	2
			(573)	**898**

(H) The adjustment as a part of the carrying value of inventories arising on account of fair value hedges is as follows:

(₹ in Crore)

Increase/ (Decrease) in Inventory Value	As at 31/03/2021			As at 31/03/2020		
Inventory Type	Raw Material	WIP and Finished Goods	Total	Raw Material	WIP and Finished Goods	Total
Copper	302	103	405	(501)	-	(501)
Gold	(5)	(93)	(98)	(7)	6	(1)
Silver	(6)	-	(6)	(7)	(43)	(50)
	291	**10**	**301**	**(515)**	**(37)**	**(552)**

(I) The Company's hedging policy only allows for effective hedge relationships to be established. The effective portion of hedge is recognised in OCI, while ineffective portion of hedge is recognised immediately in the Statement of Profit and Loss. For Cash flow hedges, the Company uses hypothetical derivative method to assess effectiveness based on "lower off" assessment.

Sources of Hedge ineffectiveness summarised by risk category are as follows :

Risk Category	Sources of Hedge Ineffectiveness	Type of Hedge
Price Risk	Critical terms Mismatch	Cash Flow and Fair Value Hedge
	Basis Risk	Fair Value Hedge
	Credit Risk Adjustment	Cash Flow and Fair Value Hedge
Exchange Risk	Credit Risk Adjustment	Cash Flow Hedge

The amount of gain/ (loss) recognised in the Statement of Profit and Loss on account of hedge ineffectiveness is as follows:

(₹ in Crore)

Note No.	Note Description	Note Description	Type of Hedge	Year ended 31/03/2021	Year ended 31/03/2020
37	Other Expenses	Gain/(Loss) on Derivatives	Cash Flow Hedges	(111)	(113)
37	Other Expenses	Gain/(Loss) on Derivatives	Fair Value Hedges	(33)	(12)
				(144)	**(125)**

(J) Certain hedges of forecast sale transaction for hedging currency risk and forecast transaction to purchase furnace oil were discontinued during the year since the hedged forecast transaction was not expected to occur.

50. COVID 19 Impact on the Financial Statement.

The outbreak of coronavirus (COVID19) pandemic impacted businesses around the globe during the current financial year. The Company's operations, revenues, and profitability during the current year has improved and has reached almost the pre-COVID19 level. The Company has made a detailed assessment of its liquidity position for a period of at least one year from the balance sheet date, of the recoverability and carrying values of its assets comprising property, plant and equipment, Intangible assets, Trade Receivables, Inventory, investments, other current and non-current assets and ability to pay its liabilities as they become due and effectiveness of internal financial controls at the balance sheet date, and has concluded that there are no material impact or adjustments required in the standalone financial statements.

Management is of the view that considering the nature of its business operations, existing customer and supplier relationships and its market position, impact on its business operations, impact on its business operations, if any, arising from COVID -19 pandemic is not expected to be significant. The impact of COVID 19 pandemic may be different from that estimated as at the date of approval of these standalone financial statements. The Company will continue to monitor any material changes to future economic conditions.

51. Note on acquisition of Aleris Corporation (Aleris)

On April 14, 2020, the Company completed its acquisition of 100% of the issued and outstanding shares of Aleris Corporation (Aleris), a global supplier of rolled aluminium products. As a result, the acquisition increases the Company's footprint as an aluminium rolled products manufacturer by expanding the portfolio of services provided to its customers.

52. Gare Palma IV/4 (GP-4) and Gare Palma IV/5 (GP-5) coal mines were acquired by the Company through auction conducted by the Nominated Authority (NA) constituted under the Ministry of Coal, Government of India. The Company was required to achieve certain Efficiency Parameters and reach their Peak Rated Capacity (PRC) during 2015-16. Performance Security in the form of Performance Bank Guarantees (PBG) of ₹ 318 Crore and ₹ 369 Crore for GP-4 and GP-5 respectively were provided by the Company to NA in this regard.

Due to the various delays on the part of NA, PRC was achieved by the Company for both the mines during FY 2016-17. Having satisfied itself about achievement of Efficiency Parameters/PRC, NA returned the PBG in respect of GP-4 on June 19, 2017. However, in a volte face action, vide a letter dated 25th April, 2018, NA imposed a penalty equal to 20% of PBG amounting to ₹ 64 Crore for GP-4 and ₹ 74 Crore (refer note 10) for GP-5. As the PBG for GP-5 was still with NA, it also appropriated an amount equal to the penalty from the PBG.

The above actions were contested by the Company and the Hon'ble Chhattisgarh High Court at Bilaspur has already given its judgment in favour of the Company in the matter related to GP-5. As per the judgment, Hon'ble High Court has asked NA to refund the amount apportioned by them and return the PBG to the Company. The NA has filed an appeal before the Hon'ble Supreme Court which has not been taken up hearing yet. The Company's appeal to quash the demand raised by NA in case of GP-4 is yet to be decided and is pending before the Mines Tribunal.

The Company further received two Show-Cause Notices dated December 03, 2019 from NA for shortfall in production of coal at the above mines for FY 2017-18 and FY 2018-19 compared to their respective mining plans. Through these notices, the NA has asked the Company to show cause why action should not be taken against the Company for recovery of an amount equal to the appropriation amount for the said defaults provided in Clause 6.3 and 10.3 of the Coal Mine Development and Production Agreement.

The Company has furnished its replies to both the notices vide letters dated December 17, 2019 contesting that the NA has no right under the aforesaid clauses to recover any amount from the Performance Security.

The NA has neither issued any further letter to the Company nor raised any demand against the Company in this regard.

53. Additional Information

A. As per Section135 of the Companies Act, 2013, a company, meeting the applicability threshold, needs to spend at least 2% of its average net profit for the immediately preceding three financial years on Corporate social Responsibility (CSR) activities. The areas for CSR activities are eradication of hunger and malnutrition, promoting education, art and culture, healthcare, destitute care and rehabilitation, environment sustainability, disaster relief, COVID-19 relief and rural development projects. A CSR committee has been formed by the Company as per the Act. The funds were primarily allocated to a corpus and utilized through the year on these activities which are specified in Schedule VII of the Companies Act, 2013:

i) Gross amount required to be spent by the company during the year is ₹ 27 Crore.

ii) Amount spent during the year

(₹ in Crore)

	Particulars	31/03/2021
a)	Construction/ acquisition of any asset^	1
b)	On purposes other than (a) above	39
	Total	**40**

^ Assets are not in the books of the Company

iii) Details of excess amount spent under Section 135(5) of the Companies Act, 2013

(₹ in Crore)

Balance excess spent as at 1/4/2020	Amount required to be spent during the year	Amount spent during the year	CSR expenses claimed in Current year	Balance excess spent as at 31/03/2021
-	27	40	28	12

iv) In the previous year as per the provisions of Companies Act 2013, amount not less than ₹ 38 Crore should have been incurred during the year under CSR. The Company has incurred expenses amounting to ₹ 39 Crore in line with the CSR policy which is in conformity with the activities specified in Schedule VII of the Companies Act 2013.

B. Details of loans given, investment made and guarantee given covered under section 186(4) of the Companies Act, 2013:

i. Details of investments made have been given as part of Note '5' Investments in Subsidiary, Note '6' Investments in Associates and Joint Ventures and Note '7A and 7B' Other Investments.

ii. Loans and Financial Guarantees given below:

(₹ in Crore)

Name of the Company	Relationship	Nature of Transaction	As at 31/03/2021	As at 31/03/2020
Details of Loans				
Aditya Birla Science and Technology Company Private Limited	Associate	Loan	41	46
Suvas Holding Limited	Subsidiary	Loan	8	9
Details of Guarantee				
Dahej Harbour and Infrastructure Limited	Subsidiary	Performance Guarantee	5	5

iii. Disclosure relating to amount outstanding at year end and maximum outstanding during the year of loans and advances, in nature of loan, required under SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, are given below:

(₹ in Crore)

Name of the Company	As at 31/03/2021	Maximum outstanding during 2020-21	As at 31/03/2020	Maximum outstanding during 2019-20
Associate:				
Aditya Birla Science and Technology Company Private Limited	41	46	46	51
Subsidiary:				
Suvas Holding Limited	8	9	9	11

54. During the financial year ended March 31, 2021, the Company has reclassified following comparatives which do not have material impact on the Standalone Financial Statements.

(₹ in Crore)

Note No.	Note Description	Previously Reported Amount	Revised Amount	Change
Statement of Profit and Loss				
28	Cost of Materials Consumed	22,623	22,585	(38)
32	Power and Fuel	6,994	6,989	(5)
36	Impairment Loss/ (Reversal) on Financial Assets (Net)	38	4	(34)
37	Other Expenses	4,745	4,822	77

As per our report annexed

For Price Waterhouse & Co Chartered Accountants LLP
Firm Registration No. 304026E/E-300009

Sumit Seth
Partner
Membership No. 105869

For and on behalf of the Board of Hindalco Industries Limited

Praveen Kumar Maheshwari
Whole-time Director &
Chief Financial Officer
DIN-00174361

Satish Pai
Managing Director
DIN-06646758

Anil Malik
Company Secretary

K N Bhandari
Director
DIN- 00026078

Place : Mumbai
Date : May 21, 2021

INDEPENDENT ASSURANCE STATEMENT

The Board of Directors and Management
Hindalco Industries Limited
Mumbai, India

Ernst & Young Associates LLP (EY) was engaged by Hindalco Industries Limited (the 'Company') to provide independent assurance on its Integrated Report FY 2020-21 (the 'Report') covering salient features of business as well as sustainability, including performance during the period 1st April 2020 to 31st March 2021.

The development of the Report is based on the <IR> Integrated Reporting Framework by International Integrated Reporting Council (IIRC) and the Global Reporting Initiative (GRI) Standards, and its subsequent updates in 2018 and 2020; its content and presentation is the sole responsibility of the management of the Company. Our responsibility in performing our assurance activities is to the management of the Company only and in accordance with the terms of reference agreed with the Company. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organization. Any dependence that any such third party may place on the Report is entirely at its own risk. The assurance statement should not be taken as a basis for interpreting the Company's overall performance, except for the aspects mentioned in the scope below.

Scope of assurance

The scope of assurance covers the following aspects of the Report:

- Data and information related to the Company's sustainability performance for the period 1st April, 2020 to 31st March, 2021 following GRI Standard;
- The Company's internal protocols, processes, and controls related to the collection and collation of specified sustainability performance data;
- Remote Verification of sample data and related information through consultations at the Company's Head Office in Mumbai and virtual desktop review of the following Locations of operations:
  1) Hindalco Industries Limited, Mouda, Maharashtra
  2) Hindalco Industries Limited, Belagavi, Karnataka
  3) Mahan Aluminium, Singrauli, Madhya Pradesh
  4) Samri Mines, Samri, Chattisgarh
  5) Birla Copper, Dahej, Gujarat
- Review of data on a sample basis, of the entities listed above pertaining to the following specific disclosures of the GRI Standards:
  - General Disclosures (102-1 to 102-56)
  - Environmental Topics:

    Materials (301-1, 301-2), Energy (302-1, 302-3, 302-4), Water and Effluents (303-1, 303-2, 303-3, 303-4, 303-5), Biodiversity (304-1, 304-2, 304-3, 304-4), Emissions (305-1, 305-2, 305-4, 305-5, 305-6, 305-7), Waste (306-1, 306-2, 306-3, 306-4, 306-5), Supplier Environmental Assessment (308-1);
  - Social Topics:

    Employment (401-1, 401-2, 401-3), Labor/ Management Relations (402-1), Occupational Health and Safety (403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-8, 403-9, 403-10), Training and Education (404-1, 404-2, 404-3), Diversity and Equal Opportunity (405-1, 405-2), Non-discrimination (406-1), Freedom of Association and Collective Bargaining (407-1), Child Labor (408-1), Forced or Compulsory Labor (409-1), Security Practices (410-1), Human Rights Assessment (412-1, 412-2), Local Communities (413-1), Supplier Social Assessment (414-1), Customer Health and Safety (416-1), Marketing and Labeling (417-1).

Limitations of our review

The assurance scope excludes:

- Operations of the Company other than those mentioned in the 'Scope of Assurance';
- Aspects of the Report and data/information other than those mentioned above;
- Data and information outside the defined reporting period i.e. 1st April 2020 to 31st March 2021;
- The Company's statements that describe expression of opinion, belief, aspiration, expectation, aim or future intention provided by the Company;
- Review of the Company's compliance with regulations, acts, guidelines with respect to various regulatory agencies and other legal matters;
- Data and information on economic and financial performance of the Company.

Assurance criteria

The assurance engagement was planned and performed in accordance with the International Federation of Accountants' International Standard for Assurance Engagements Other than Audits or Reviews of Historical Financial Information (ISAE 3000) and the second edition of AccountAbility's AA1000 Assurance Standard (AA1000 AS). Our evidence-gathering procedures were designed to obtain a 'Limited' level of assurance (as set out in ISAE 3000) on reporting principles and a 'Type 1, Moderate' level of assurance (as per AA1000 AS), as well as conformance of the disclosures to the specified GRI Standards.

What we did to form our conclusions

In order to form our conclusions we undertook the following key steps:

- Interviews with select key personnel and the core team responsible for the preparation of the Report to understand the Company's sustainability vision, mechanism for management of sustainability issues and engagement with key stakeholders;
- Interactions with the key personnel at the Company's locations of operations to understand and review the current processes in place for capturing sustainability performance data;
- Verification of data on a sample basis at the Company's corporate office and locations of operations as mentioned in the 'Scope of Assurance' above;
- Review of relevant documents and systems for gathering, analyzing and aggregating sustainability performance data in the reporting period;
- Review of selected qualitative statements in various sections of the Report.

Our observations

The Company has developed the Report in accordance with the <IR> Integrated Reporting Framework by International Integrated Reporting Council (IIRC) and the Global Reporting Initiative (GRI) Standards. The Report includes a description of the Company's stakeholder engagement process, materiality assessment and relevant performance disclosures on the identified material topics. Some data pertaining to key performance disclosures underwent change as part of our assurance process. Areas of further improvement wherever identified and have been brought before the attention of the management of the company. The company may consider strengthening its internal guidance on sustainability indicators to ensure uniform reporting from all its locations.

Our conclusion

On the basis of our review scope and methodology, our conclusions are as follows:

- **Inclusiveness**

  The Company has described its stakeholder engagement approach and activities in the Report. We are not aware of any matter that would lead us to conclude that the Company has not applied the principle of inclusivity in engaging with the key stakeholder groups identified in the Report.

- **Materiality**

  The Company has identified key issues material to its sustainability performance and described the process for materiality analysis in the Report. Nothing has come to our attention that causes us to believe that material issues so identified have been excluded from the Report by the Company.

- **Responsiveness**

  We are not aware of any matter that would lead us to believe that the Company has not applied the responsiveness principle in its engagement with stakeholders identified in the Report on material aspects covering its sustainability performance.

- **Impact**

  As per the information provided to us, we are not aware of any matter that would lead us to conclude that the criteria related to the impact principle has not been applied for the key stakeholders.

  Further, nothing has come to our attention that causes us not to believe that the data has been presented fairly, in material respects, in keeping with the GRI Standards and the Company's reporting principles and criteria.

Our assurance team and independence

Our assurance team, comprising of multidisciplinary professionals, has been drawn from our climate change and sustainability network and undertakes similar engagements with a number of significant Indian and international businesses. As an assurance provider, EY is required to comply with the independence requirements set out in International Federation of Accountants (IFAC) Code of Ethics for Professional Accountants[1]. EY's independence policies and procedures ensure compliance with the Code.

for Ernst & Young Associates LLP,

Chaitanya Kalia
Partner
12.07.2021
Mumbai

NOTES

Hindalco Industries Limited

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